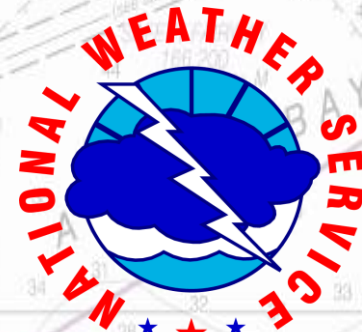


# **NOAA/NWS Weather & Navigation Virtual Seminar**



## **Welcome!**

### **Presenters**

**Lance Franck – NOAA/NWS Tallahassee**

**Tim Osborn – NOAA Office of Coast Survey**

**Saturday Feb 20<sup>th</sup> - 10:00 AM to 11:15 am ET**



# Marine Weather

*Lance Franck*  
*Meteorologist*  
*NWS Tallahassee, FL*

Photo: Boat departing Saint Andrews Bay Inlet for the Gulf of Mexico (marinas.com)





# Outline

- Marine Economy & Science
- Observations & Forecasts
- Weather Patterns
- Warnings & Reports
- Safety & Preparedness





# NWS Mission



## Meteorological support to enhance:

- The protection of life and property
- The efficiency of governmental, recreational, and commercial maritime operations.

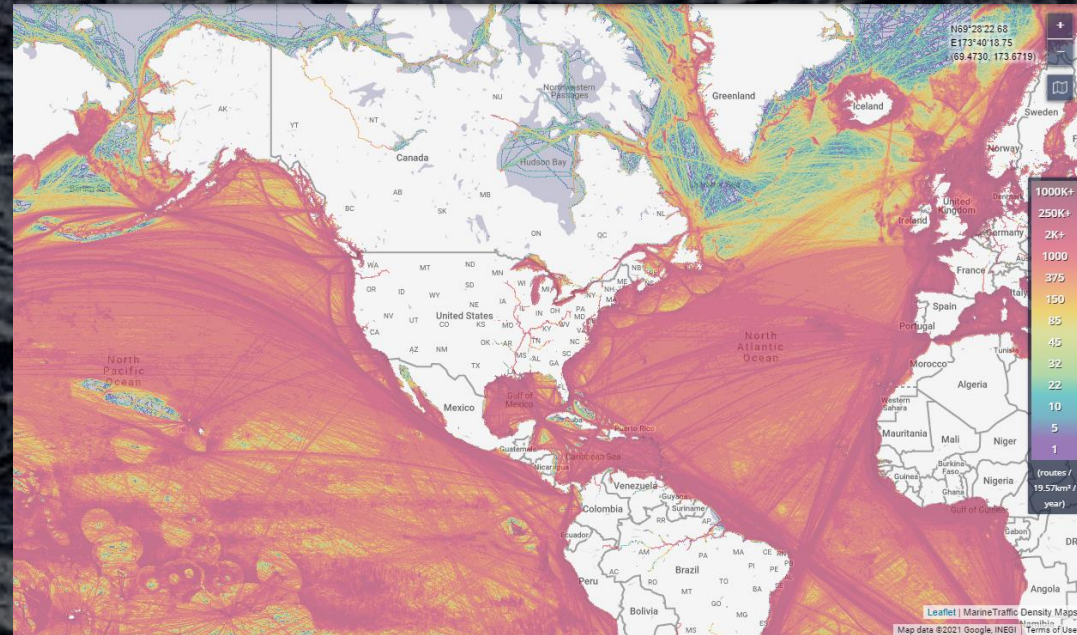




# Importance



- More than 90% of goods imported into US arrive via oceans.
- Maritime commerce worth about \$80 billion annually.
- About 80 million Americans are involved in recreational boating



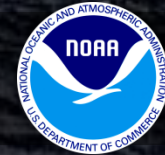
Marine traffic density for 2019 using ship Automatic Identification System (AIS):  
marinetraffic.com

**Accurate marine  
forecasts have a  
lot of value**





# Importance



## The Ten Sectors of the Marine Economy



Fisheries and  
Other Bio-Products



Research and  
Education



Professional and  
Business Services



Dredging, Restoration,  
and Other Construction



National Defense  
and Public  
Administration



Offshore Oil and Gas



Transportation



Shipbuilding



Tourism and Recreation



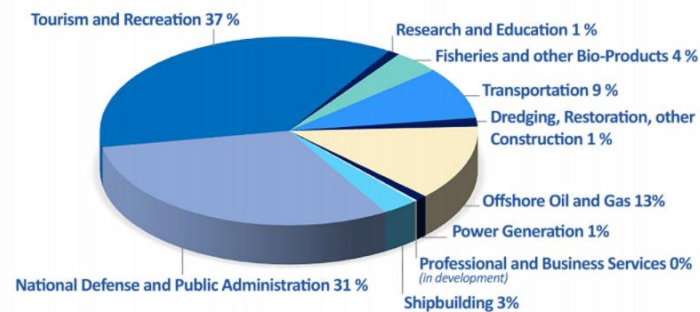
Power Generation



Department of Commerce | National Oceanic and Atmospheric Administration



## Ocean Economy Output by Activity



Ocean Economy Statistics, BEA/NOAA, 2018

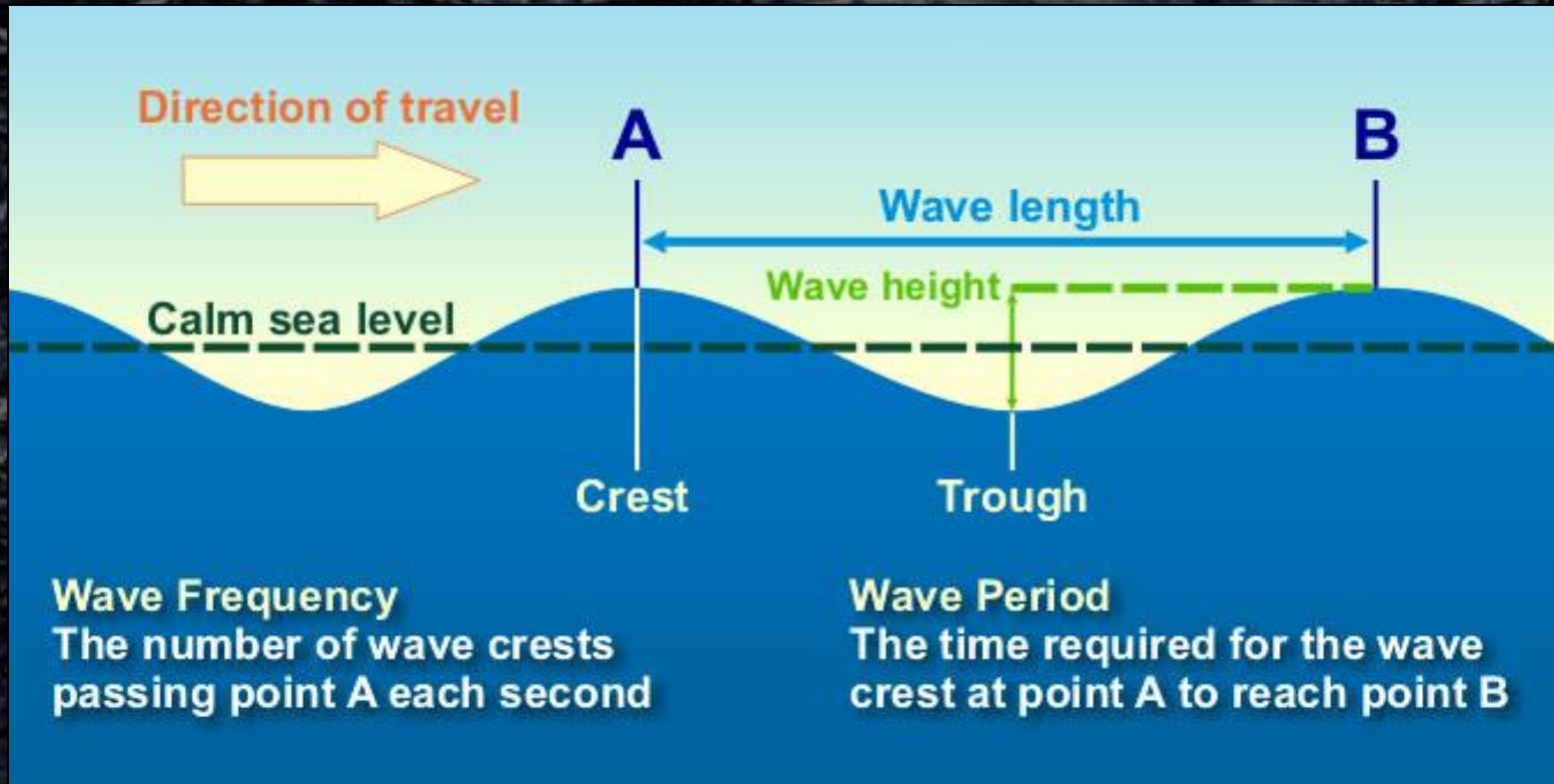


Department of Commerce | National Oceanic and Atmospheric Administration





# Anatomy of a Wave



**THREE THINGS  
CONTRIBUTE TO  
WAVE GROWTH**

1. Wind speed
2. Wind duration
3. Wind “fetch”





# Some Definitions

## Wind Waves

- Short period (4-8 seconds) waves generated from the action of the wind on the local water surface.

## Swell

- Wind generated waves that have traveled out of their source region. Swells are characterized as having smoother, more uniform crests, and longer periods (8+ seconds) than wind waves.

## Seas

- The combination of wind waves and swell.

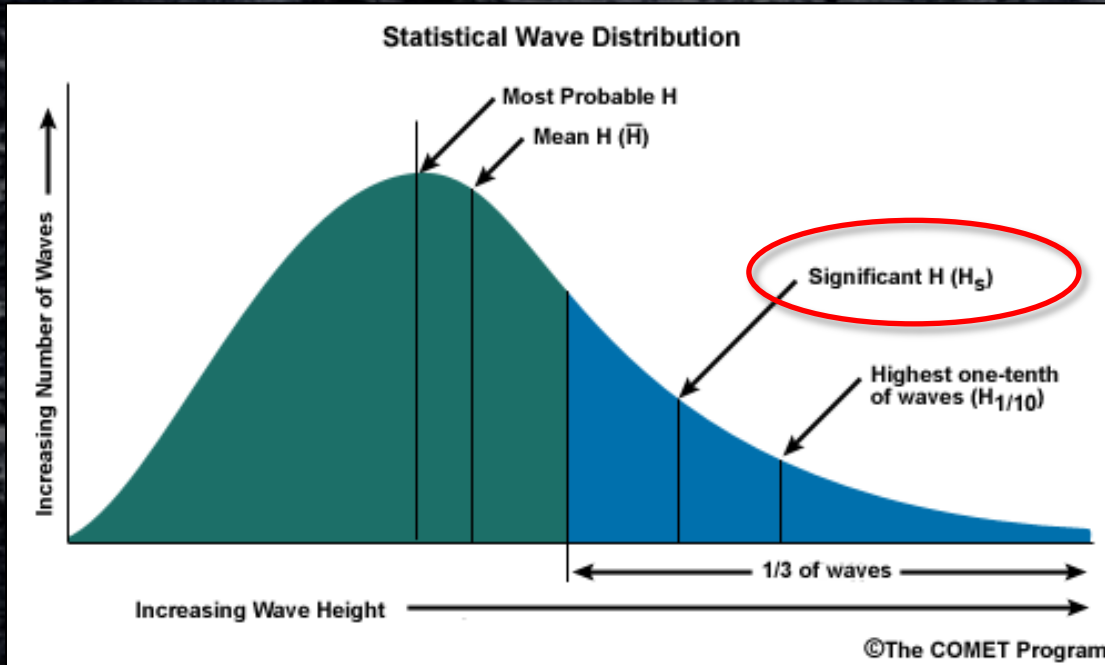
## Fetch

- An area of uniform wind speed and direction over a water body. Also, the distance over water that a fetch of wind travels.





# Wave Spectrum



Mariners should prepare for a range of wave heights, rather than focusing on the one value in the forecast.

Description	Percentage of $H_s$	If $H_s = 5$ feet
Mean wave height	64%	3.2 feet
Significant wave height	---	5 feet
Highest 10% of waves	127%	6.4 feet
Highest 1% of waves	167%	8.4 feet
Theoretical maximum	~190%	9.5 feet





# Marine Observations & Forecasts



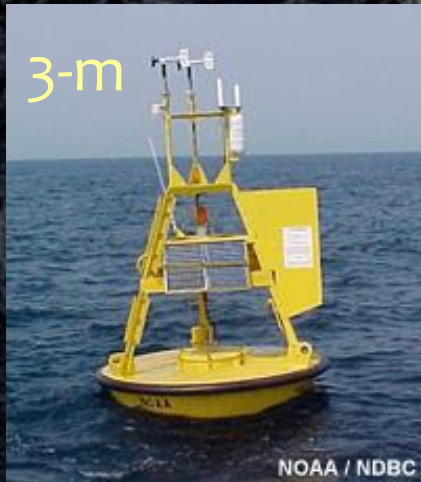
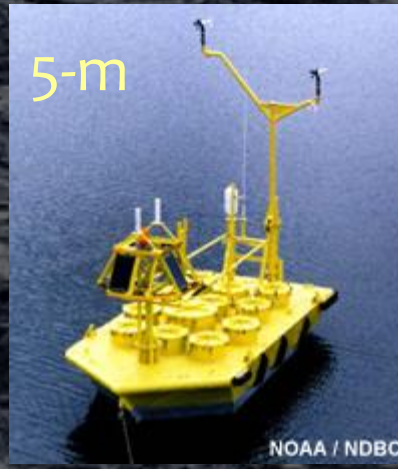
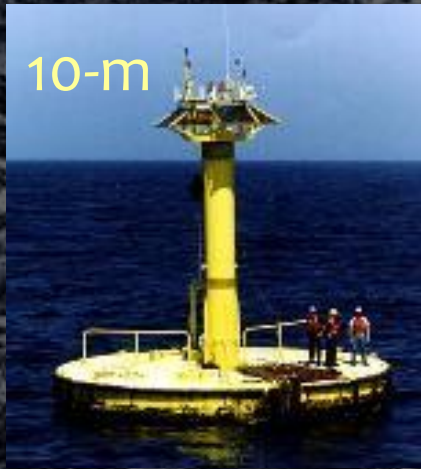


# Marine Observing Platforms



Buoys

C-MAN



Deep-ocean Assessment  
& Reporting of Tsunamis



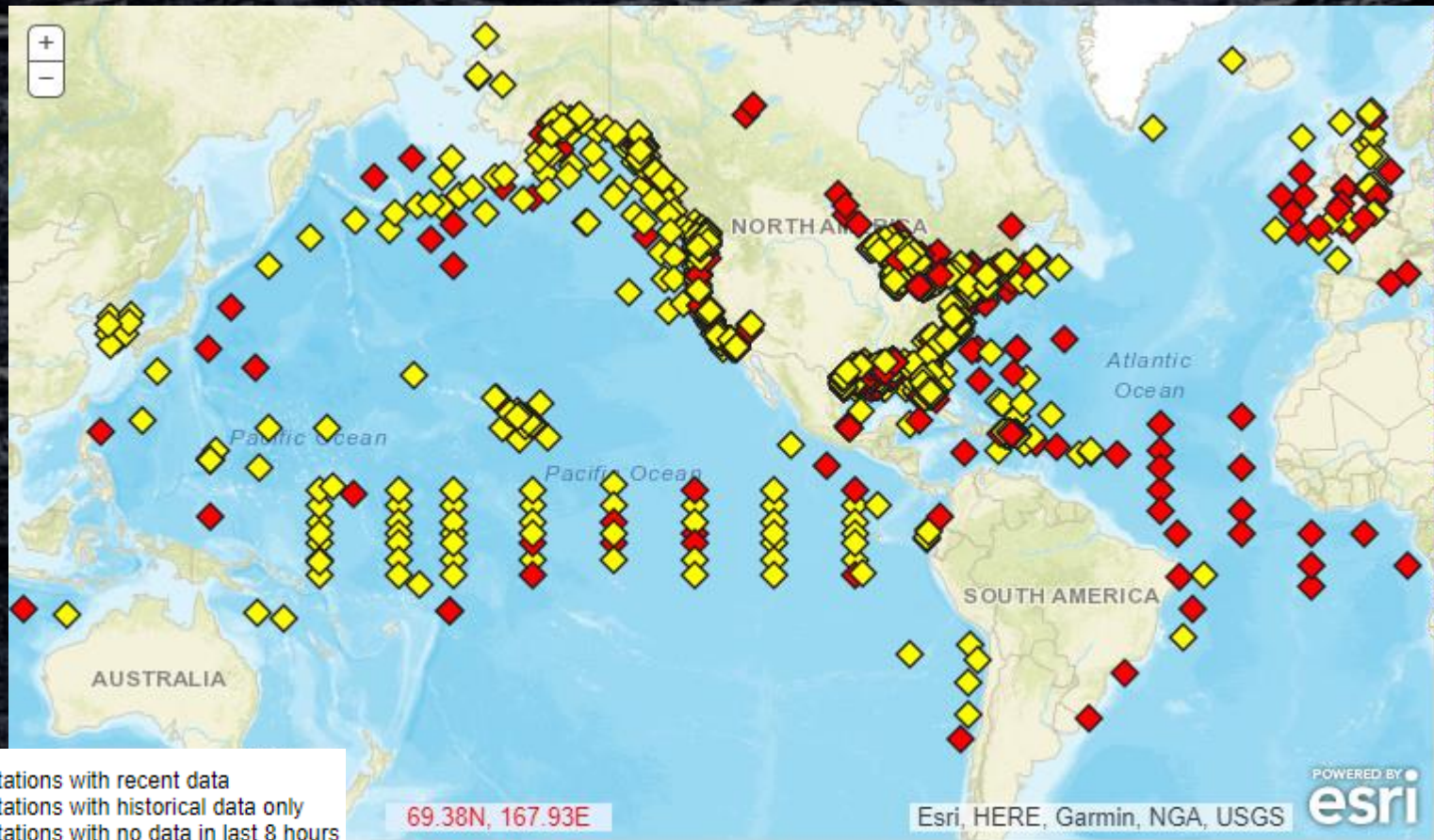
3m, 6m, 10m? What does that mean? Refers to the diameter of round buoys or length of NOMAD (ship) buoys.







# Marine Observations



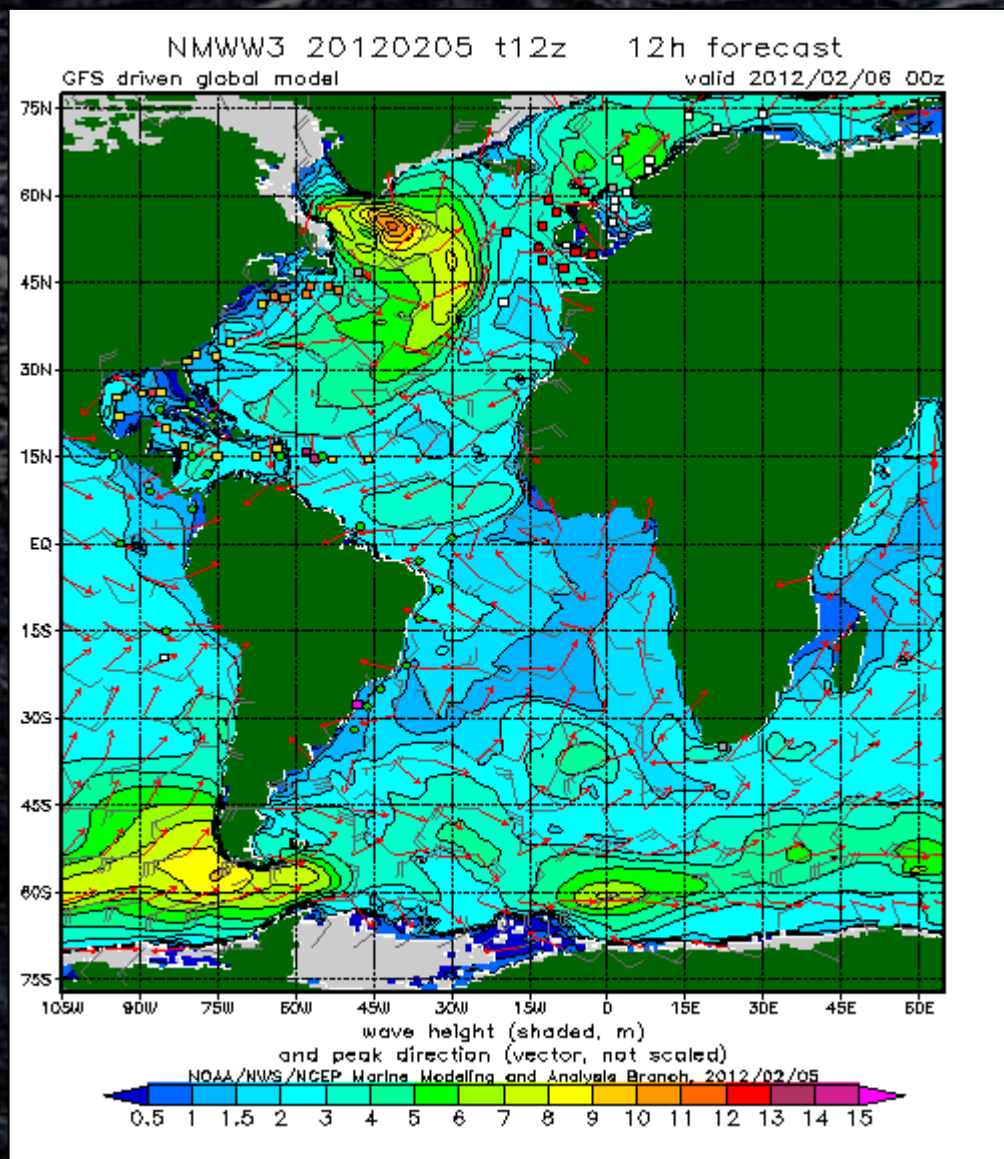
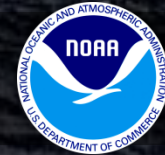
<https://www.ndbc.noaa.gov/>

Dial-a-Buoy: 888-701-8992 and then punch in the ID [example: 42039]





# Global Wave Models



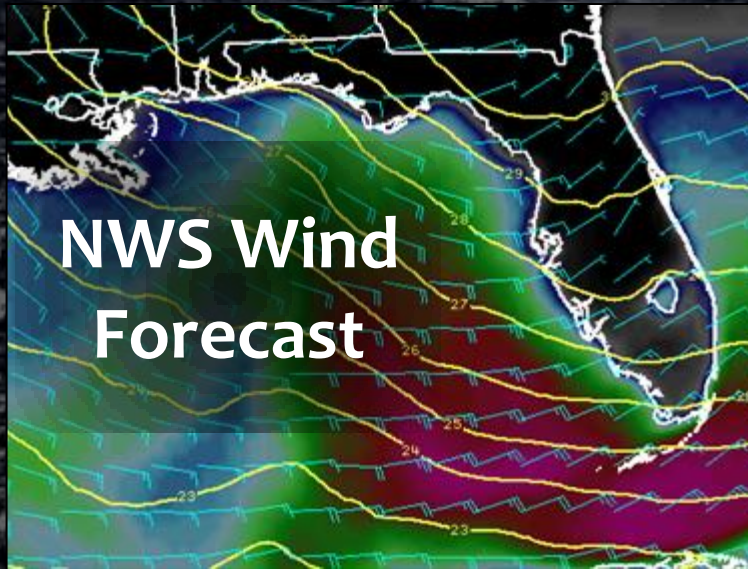
Primarily used by NWS:

**NOAA WAVEWATCH III<sup>®</sup>**





# Nearshore Wave Prediction System



Generates waves by wind stress, propagation, shoaling, refraction, bottom friction, and breaking.

Produces forecasts of...

- significant wave height
- primary swell height and direction
- primary period

Surf heights are then calculated and used to assess rip current risk

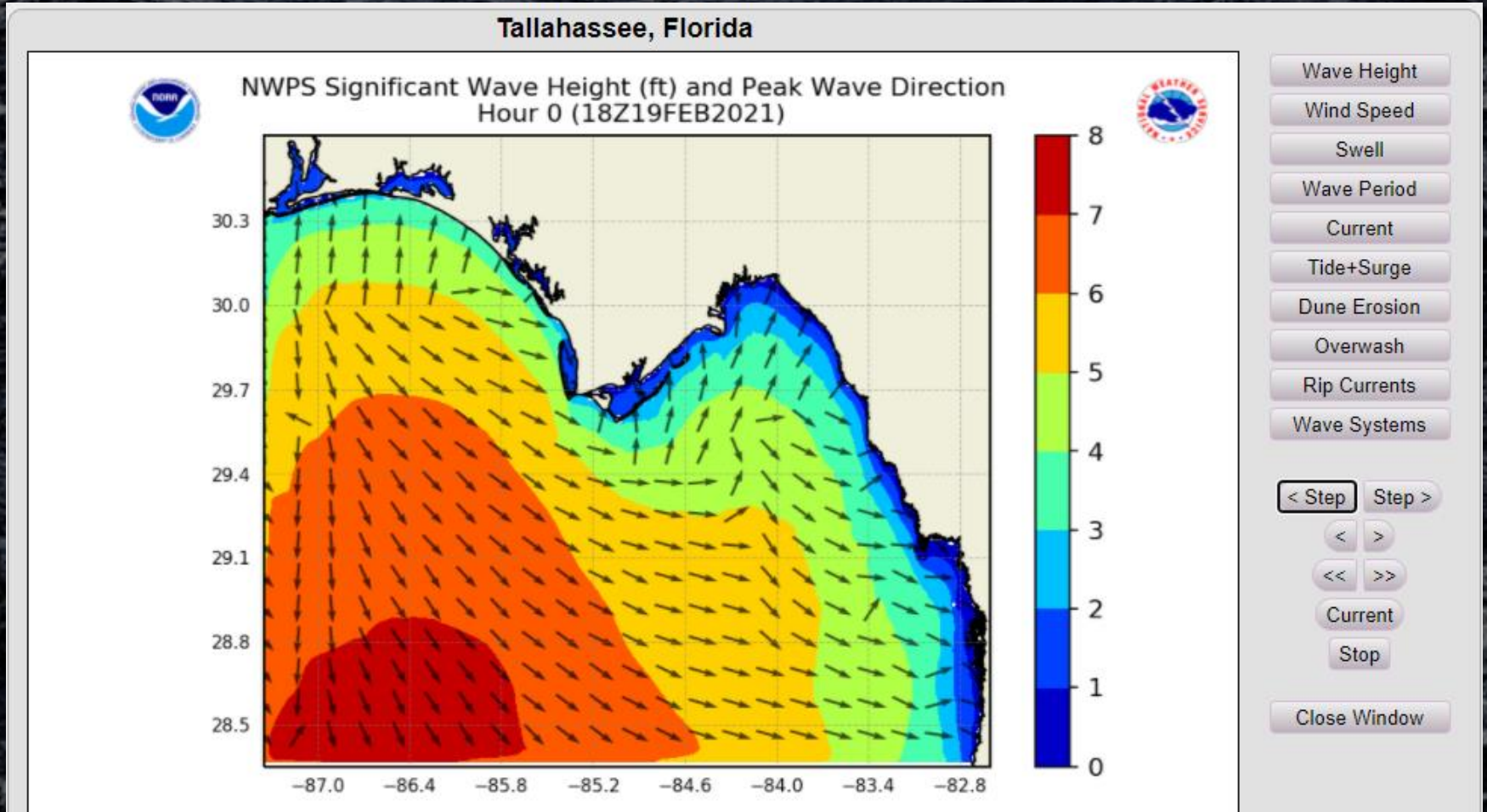




# Nearshore Wave Prediction System

<https://polar.ncep.noaa.gov/nwps/viewer.shtml>

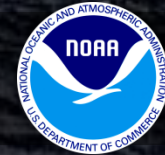
Zoom in and select a domain for model field animations



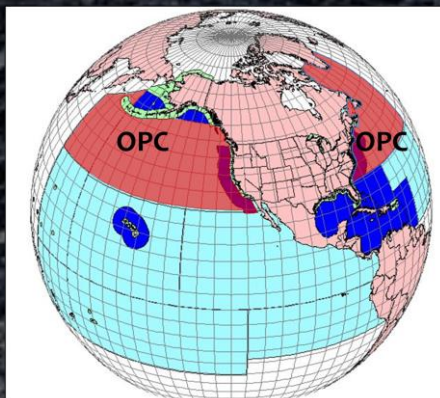




# NWS Marine Forecast Areas

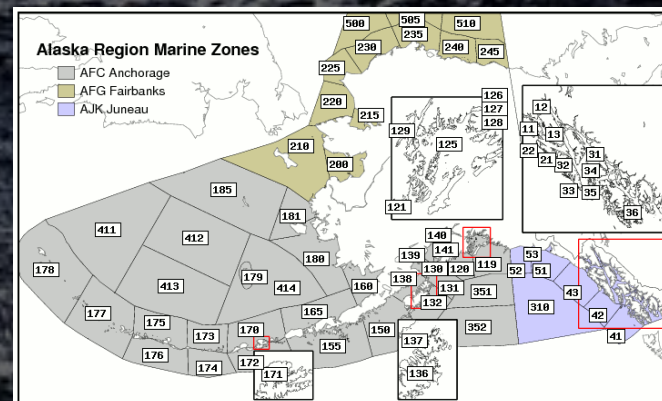


## Ocean Prediction Center



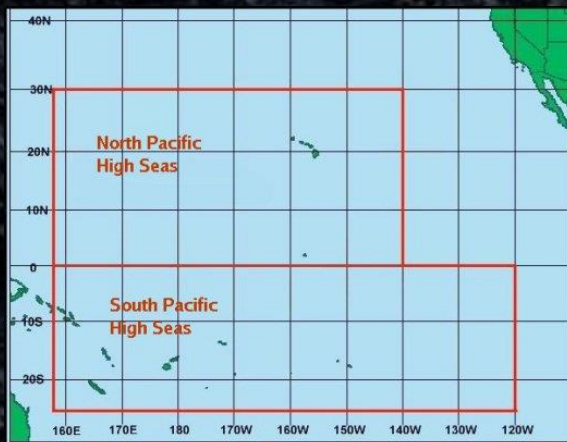
<https://ocean.weather.gov/>

## Alaska Region



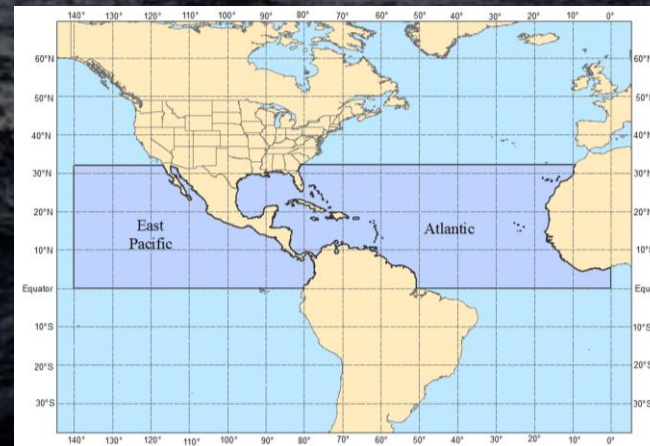
<https://www.weather.gov/afc/marine>

## Hawaiian Marine Products



<https://www.weather.gov/hfo/marine>

## Tropical Analysis & Forecast Branch

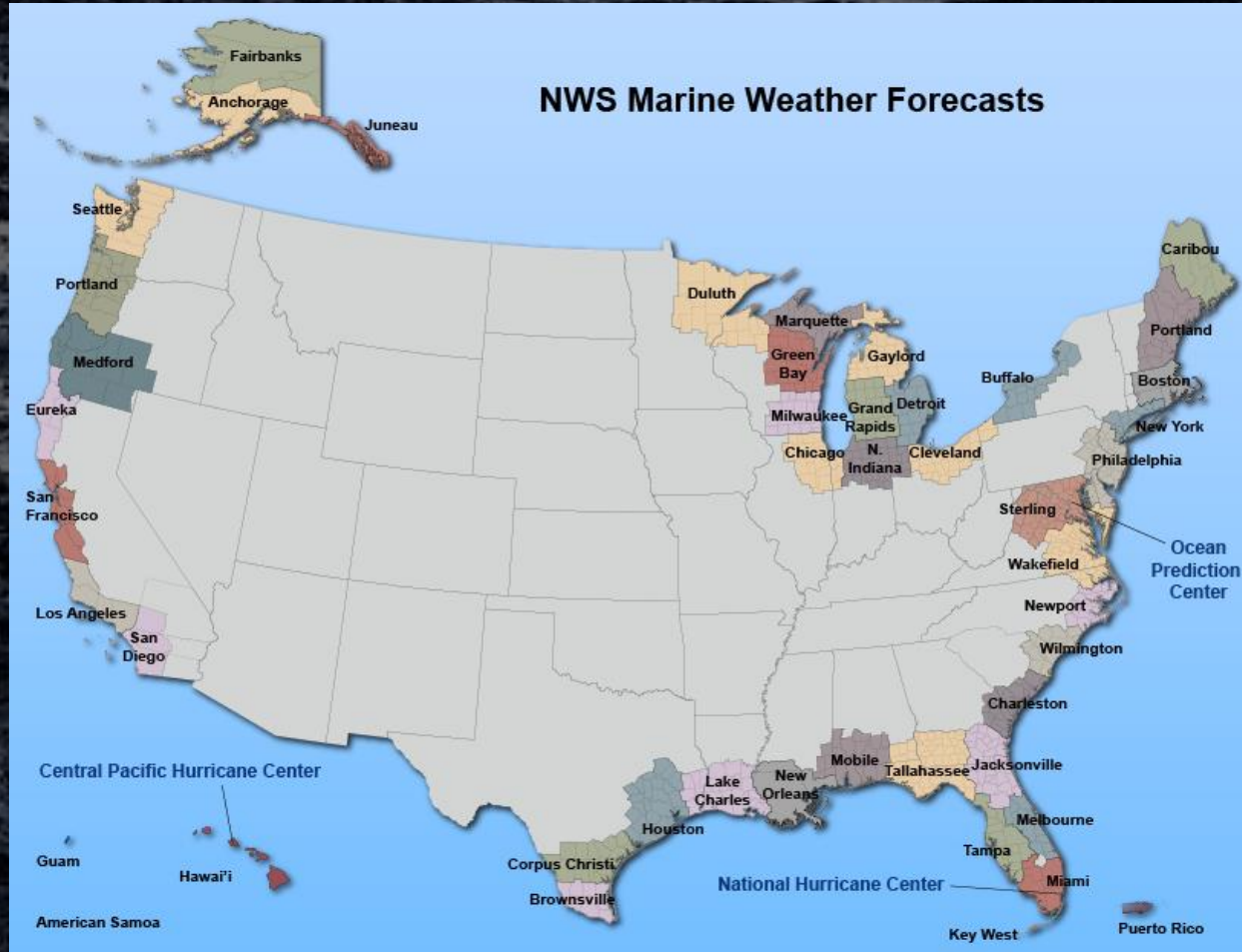


<https://www.nhc.noaa.gov/marine/>





# NWS Marine Forecast Areas

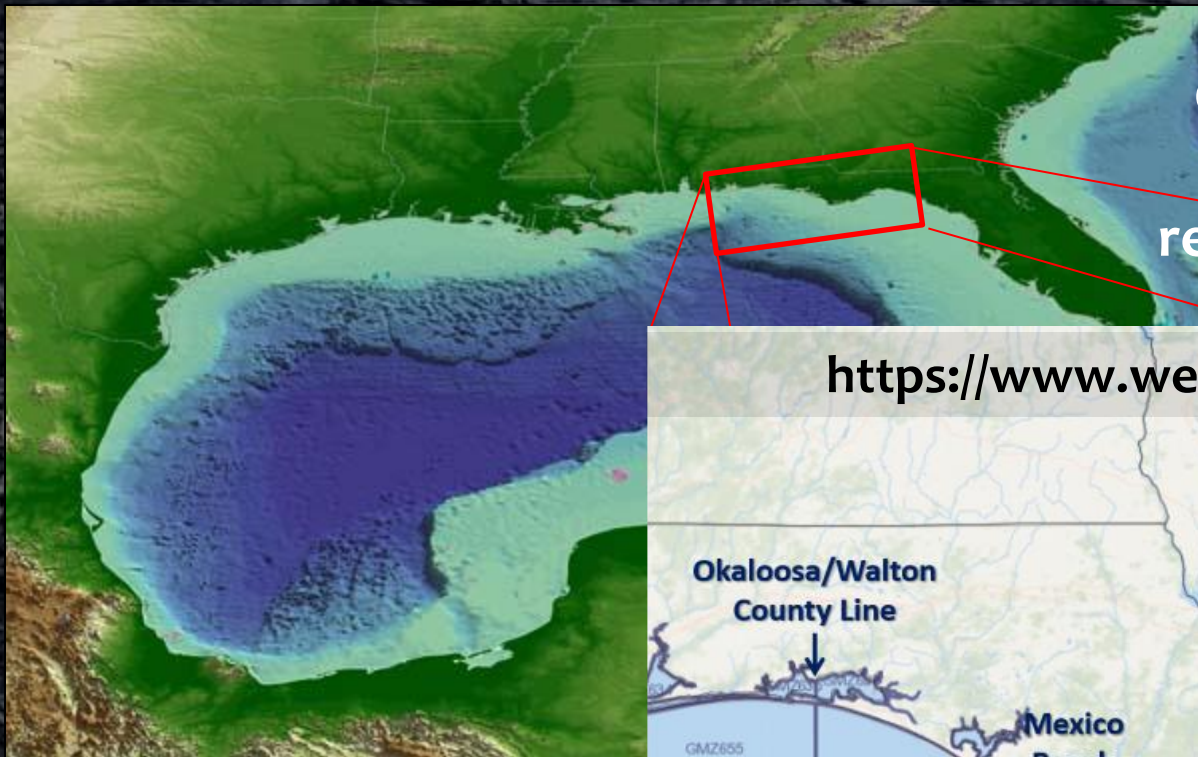
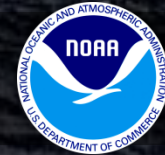


<https://www.weather.gov/marine>





# NWS Tallahassee Area



One of 46 NWS offices with local marine responsibility (out of 122)

<https://www.weather.gov/tae/marine>



37% of NWS offices have marine responsibility.





# From the national website...

<https://www.weather.gov/tae/marine>

Welcome to the new Marine Website for NWS Tallahassee! The legacy marine website can be found by clicking [here](#).

Send us your marine storm reports via our [online form](#). Help us keep everyone safe by being our eyes and ears on the water!

Current  
Conditions

Zone  
Forecasts

Point  
Forecasts

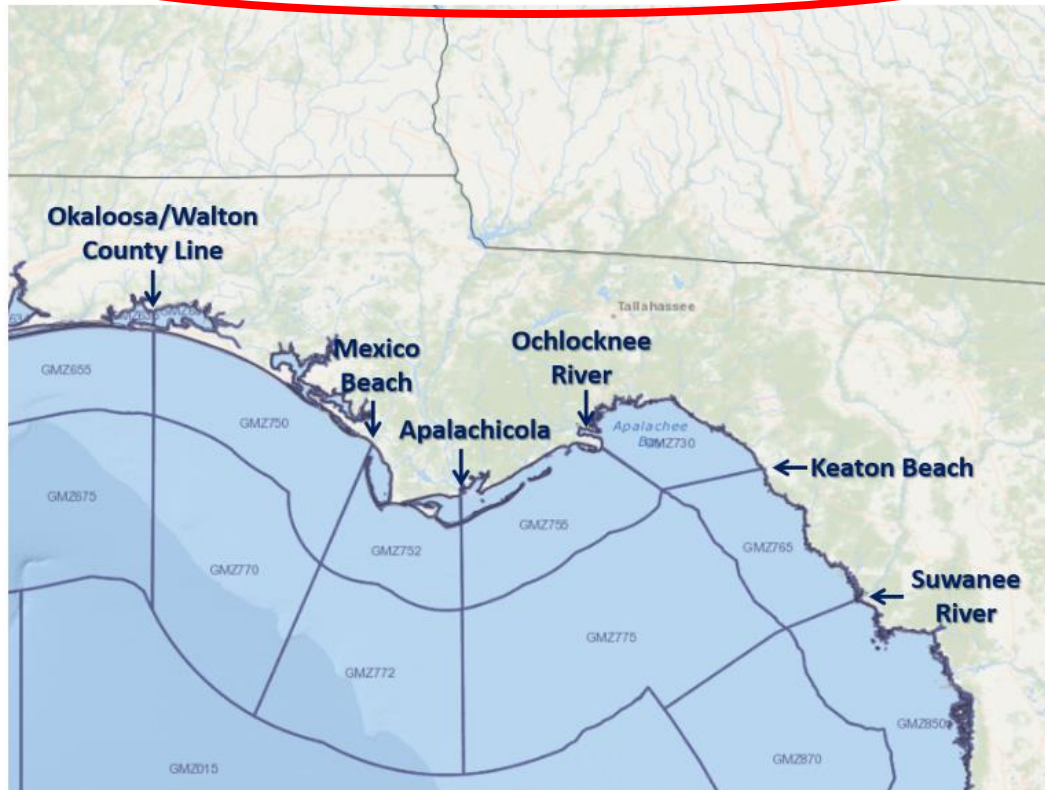
Beach  
Forecasts

NWPS  
Output

Tides / SST's

Marine  
Program

Click the map below for a detailed, zone based Coastal Waters Forecast







# Coastal Waters Forecast



A text product issued by all coastal NWS offices to explicitly state expected weather conditions within their marine forecast area of responsibility through Day 5. Primarily used for planning purposes to support and promote safe transportation across the waters.

- Contains a synopsis with a brief description of surface weather features which cause significant winds and seas.
- Any headlines in effect, e.g., Small Craft Advisory
- Wind speed and direction.
- Wave height and swell period.





# Coastal Waters Forecast



## NWS Tallahassee Example:

.SYNOPSIS...

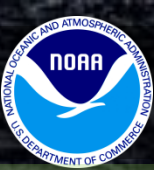
Strong northerly winds will become moderate and northeasterly on Saturday. A Small Craft Advisory is in effect until Saturday morning. Moderate winds will be easterly on Sunday. Mainly dry weather is expected this weekend and next week with the exception of a few showers possible on Monday.

...SMALL CRAFT ADVISORY IN EFFECT UNTIL 7 AM EST /6 AM CST/  
SATURDAY...

.REST OF TONIGHT...North winds 20 knots. Seas 3 to 5 feet with occasional seas up to 6 feet. Dominant period 6 seconds. Protected waters choppy.

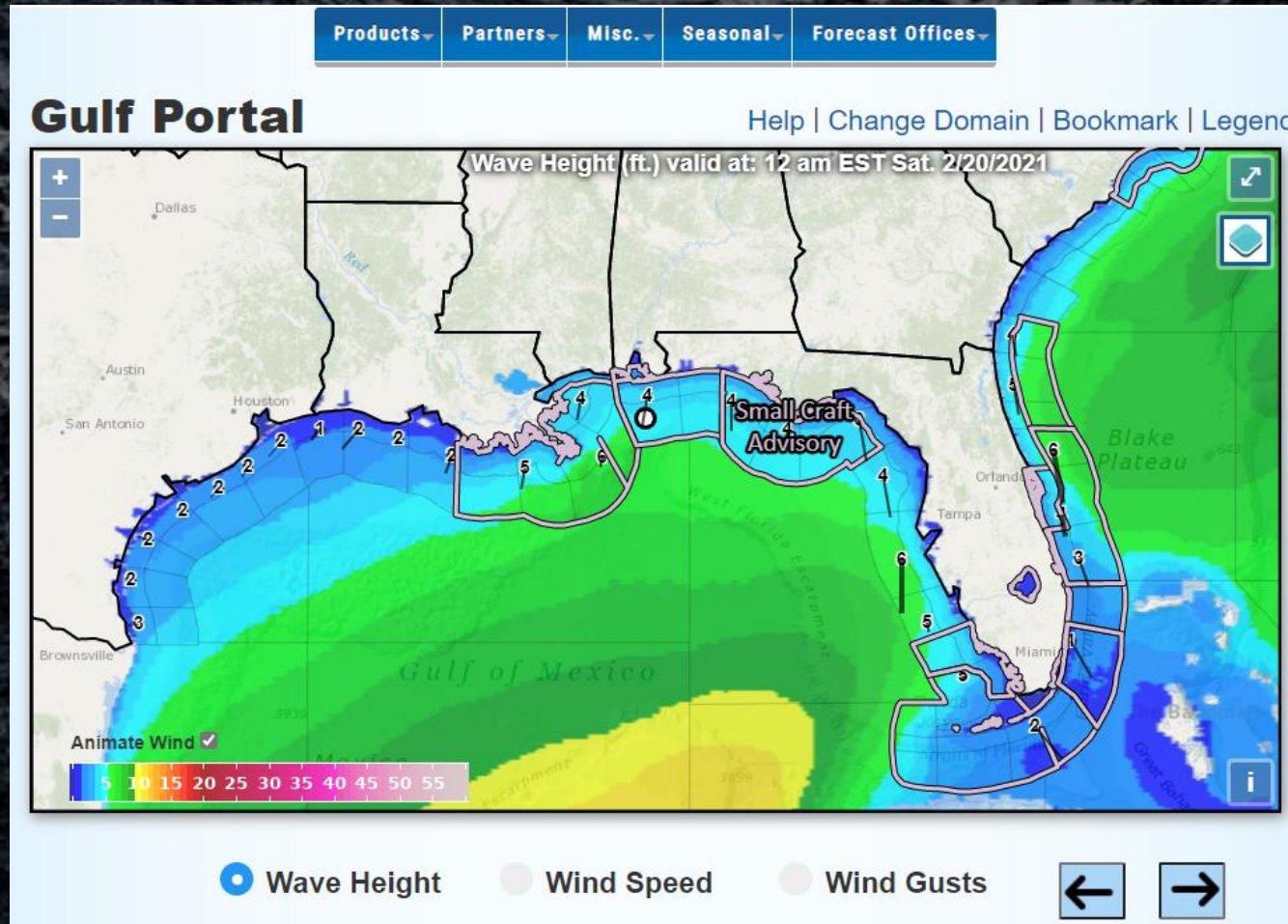
.SATURDAY...Northeast winds 15 knots. Seas 3 to 5 feet with occasional seas up to 6 feet subsiding to 2 to 3 feet. Dominant period 5 seconds in the afternoon. Protected waters a moderate chop.





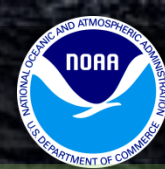
# Table & Graph Style Forecasts

<https://www.weather.gov/greatlakes/gltest?portal=gulf>



You can move the window around to other parts of US and click the map for a detailed marine forecast!



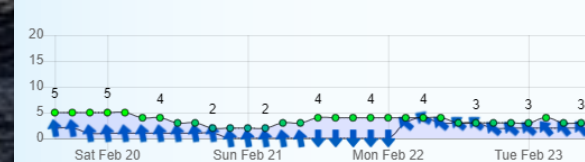


# Table & Graph Style Forecasts

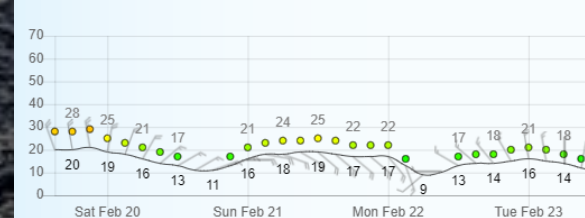
<https://www.weather.gov/greatlakes/gltest?portal=gulf>

Day of week:	Friday 2/19	Saturday 2/20							
Time:	9PM	12AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM
Weather:									
Wave Height (ft):	5	5	5	4	4	3	3	2	2
Primary Swell Height (ft):	1	1	1	1	1	1	1	1	0
Primary Swell Direction:	↑	↑	↑	↑	↑	↑	↑	↑	↑
Wave Period (sec):	5	5	5	5	5	4	4	4	4
Wind Speed (kt):	21	19	18	16	14	13	11	11	13
Wind Gust (kt):	29	25	23	21	19	17	14	14	17
Wind Direction (°):	350	10	20	30	50	60	60	70	70
Wind Direction:	↓	↓	↓	↓	↓	↓	↓	↓	↓
Temperature:	52	49	47	45	48	51	55	57	56
Wind Chill:	-	-	-	37	-	-	-	-	-
Prob. of Precip.:	0	0	0	0	0	0	0	0	0
Precip. Amount:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sky Cover:	12	10	18	21	16	9	5	5	6

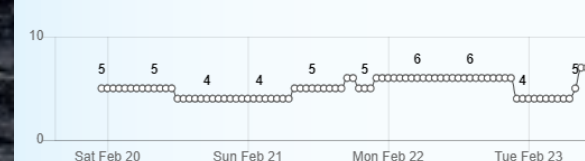
Wave Height & Primary Swell Height and Direction (ft.)



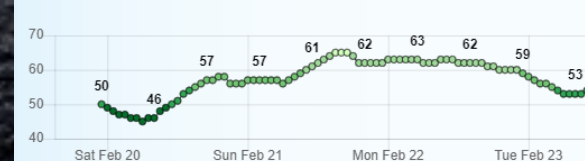
Wind Speed/Direction/Gust (kt)



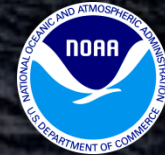
Wave Period, sec



Temperature, °F



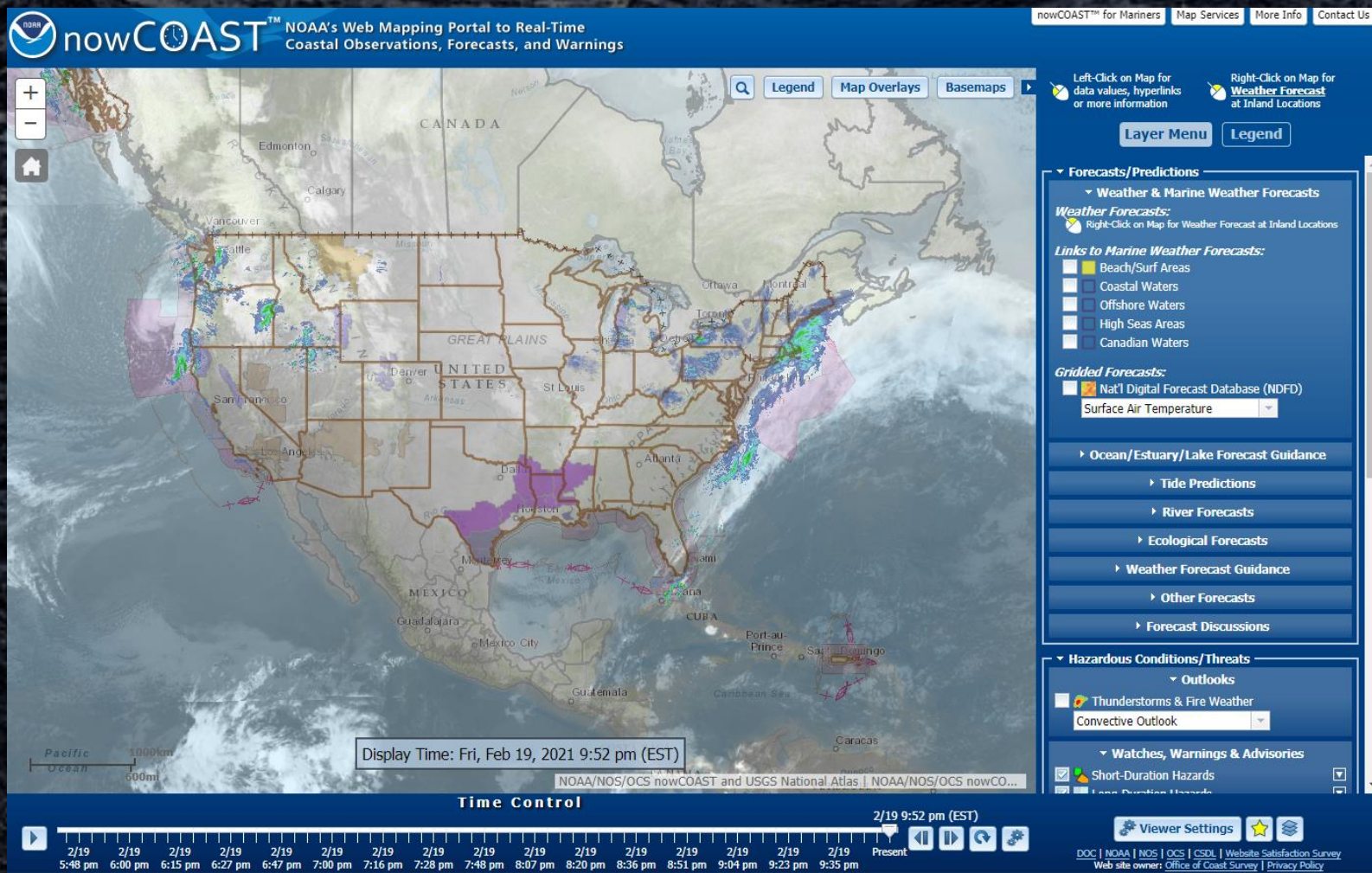




# NOAA nowCOAST

<https://nowcoast.noaa.gov/>

Display observational data and forecasts







# Hazardous Weather: Winds/Seas

## Small Craft Advisory

- Conditions hazardous to small craft. Criteria varies by NWS region, and even by NWS office. Other considerations: experience of the vessel operator; type, overall size, and sea worthiness of the vessel.

## Higher End Wind Threat

- Gale Warning: winds of 34 to 47 knots expected.
- Storm Warning: winds of 48 to 63 knots expected.

## Tropical Cyclone Watches and Warnings





# Other Hazardous Weather



## Special Marine Warning

- Thunderstorms with wind gusts of at least 34 knots, hail of at least  $\frac{3}{4}$  inch in diameter, or waterspouts.

## Dense Fog Advisory

- Visibility in fog one nautical mile or less.

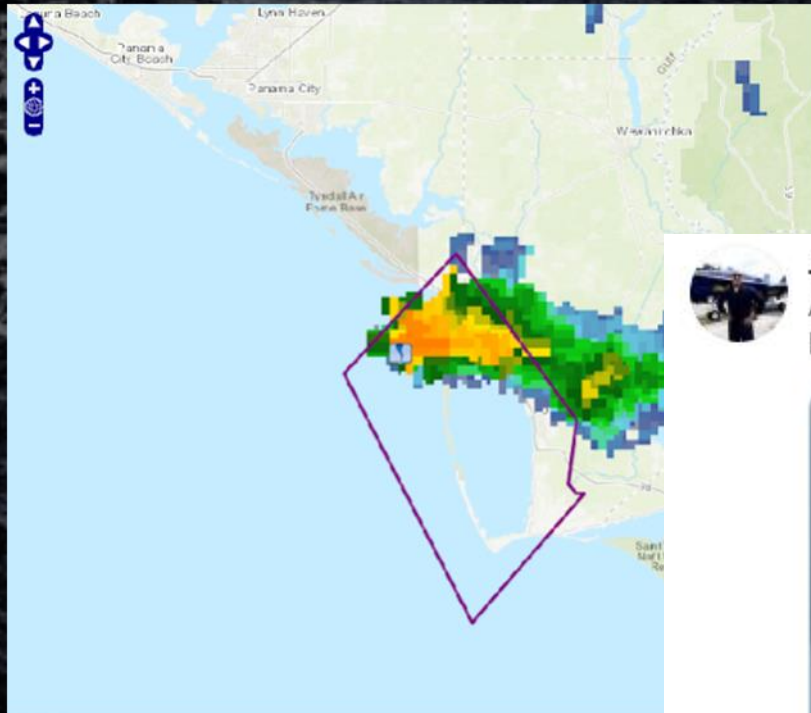
## Freezing Spray Advisory/Warning

- Hazardous ice accumulations due to a combination of air and sea temperatures, wind speeds, and wave heights.



# Example

June 1, 2019 Waterspout



**Jim Cantore** ✓ @JimCantore · Jun 1

A little treat for our [#firstdayofhurricaneseason](#) coverage off Mexico Beach, FL this morning. Large waterspout just offshore.



21

152

960





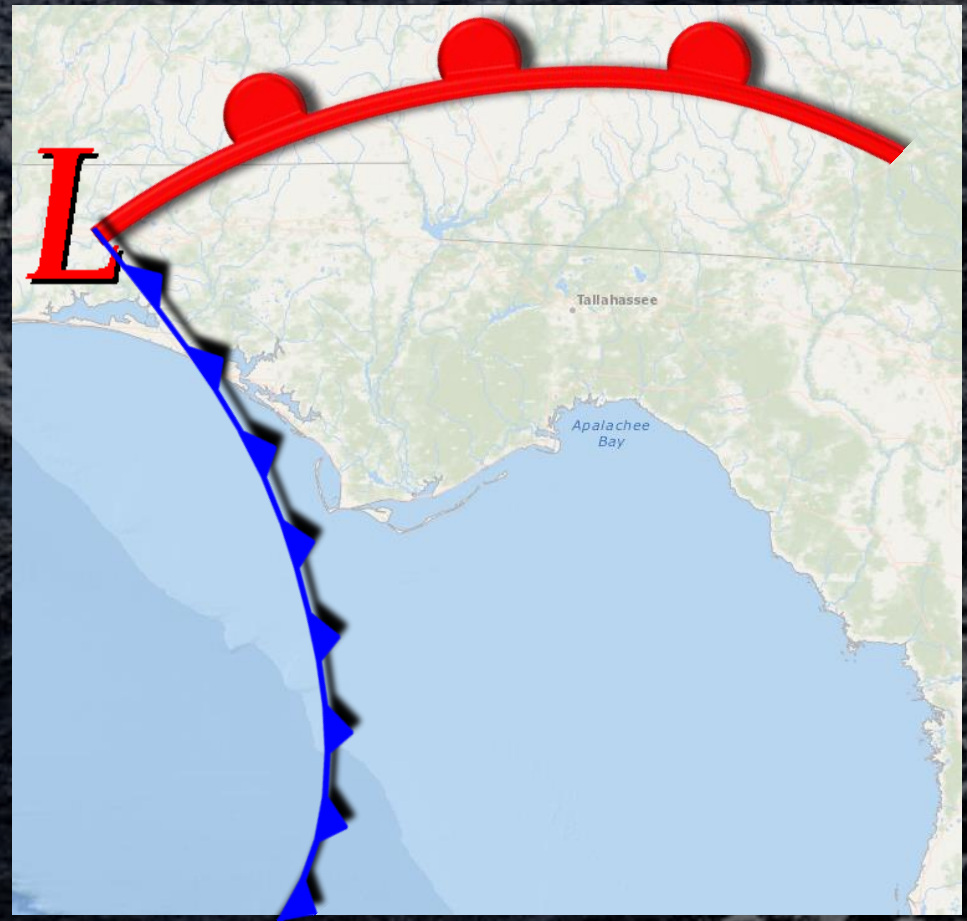


# **Weather Patterns That Favor Hazardous Marine Conditions**



# Frontal Passage

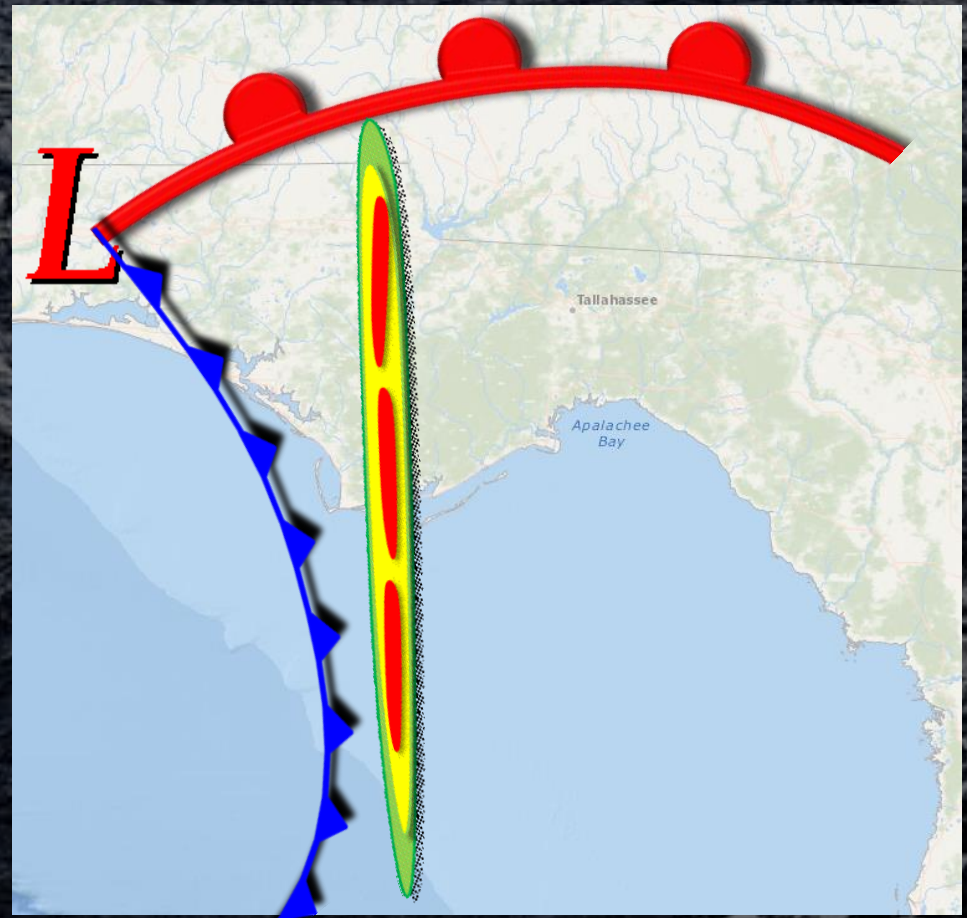
South/East flow ahead of the front becomes North/West behind the front.





# Frontal Passage

Squall line ahead of the cold front.





# Advection Fog

Most common with a warm, moist air mass over relatively cooler Sea Surface Temperatures. Can be present during elevated winds and precipitation.





# Marine Fog

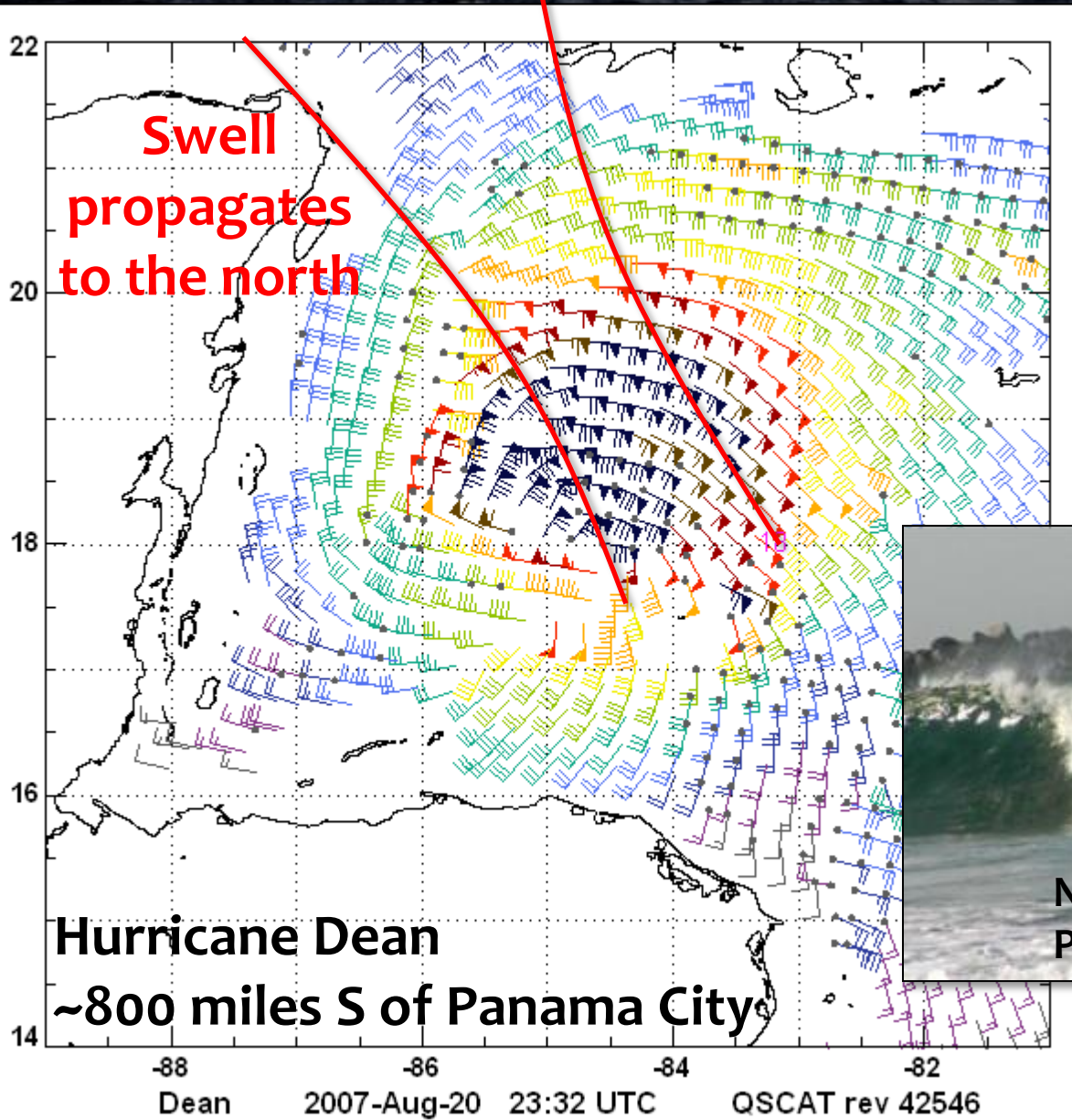
Low visibility is at least as great a hazard as elevated winds and seas.







# Tropical Cyclones



Swells from tropical cyclones can travel far from the source leading to hazardous seas with otherwise fair weather.



Near Panama City, 8/22/2007  
Photo: mrsurfs.com

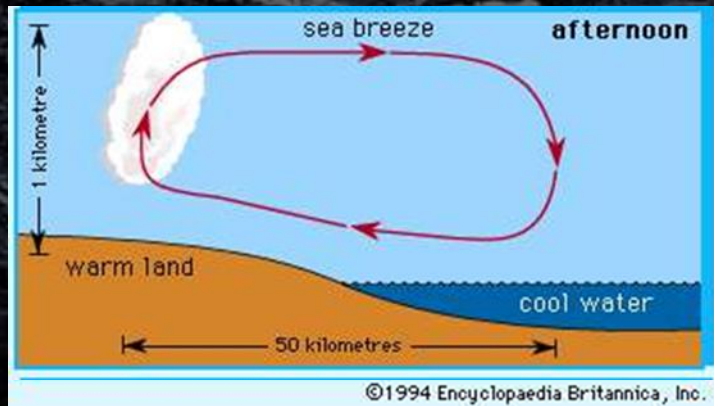




# Other Weather Patterns

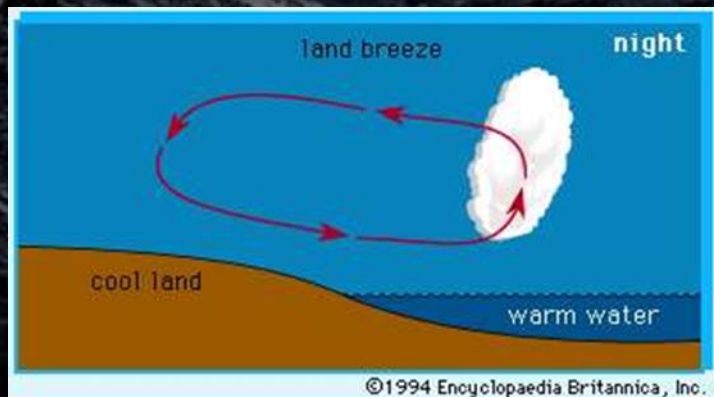


# Sea Breeze (daytime)





# Land Breeze (nighttime)

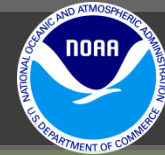






# Marine Warnings & Reports

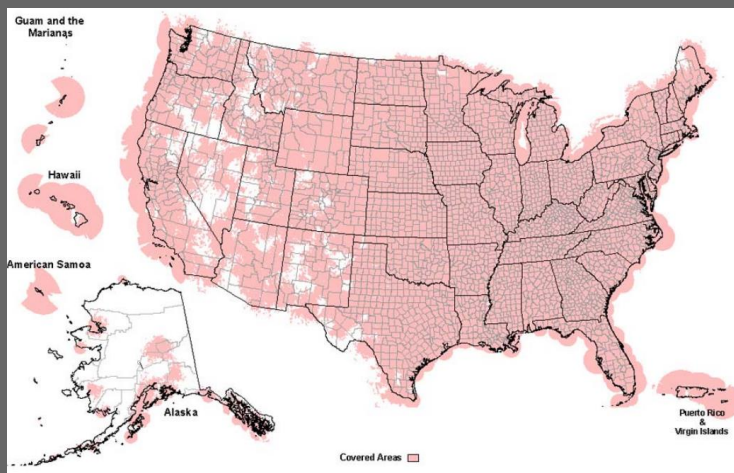




# How to get warnings

<https://www.weather.gov/nwr>

To receive marine weather statements and special marine warnings, turn VHF to WX channel



## NOAA Weather Radio Frequencies

162.400 MHz (WX2)

162.425 MHz (WX4)

162.450 MHz (WX5)

162.475 MHz (WX3)

162.500 MHz (WX6)

162.525 MHz (WX7)

162.550 MHz (WX1)

## Wireless Emergency Alerts

- Most smartphones set up, make sure under settings
- Alarms: tornado, hurricane and storm surge warnings

2:23

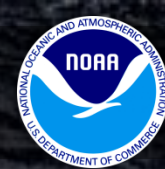
Sunday, October 14

### Emergency Alert



Tornado Warning in this area til  
3:00 PM CDT. Take shelter now.  
Check local media. -NWS





# How to send Storm Reports

<https://www.weather.gov/SocialMedia>

## Social Media

[Weather.gov](https://www.weather.gov) > Social Media

NWS is using social media tools to educate the public and share critical information related to our mission. Engaging the public and our partners in effective conversation around important weather, water, and climate issues is part of our effort to build a Weather-Ready Nation.

Connect with us online! Use the interface below to discover social media accounts for office across the NWS and join the conversation. Questions related to NWS social media should be directed to: [nws.social\\_media@noaa.gov](mailto:nws.social_media@noaa.gov).

Please note: Links below [will lead to third party social networking/social media services](#).



There are 122 NWS Weather Forecast Offices across the nation serving areas that typically consist of 20 to 50 counties ([more info](#)). Each office has its own social media accounts to keep you informed and up-to-date on the latest forecasts, watches and warnings for the local area.

Use the search box below to find the office that serves you and then follow them on social media to ensure that you're weather-ready.

Q Panama City, FL

Go!

Panama City, Florida is served by:

**NWS Tallahassee, FL**

Website: <https://www.weather.gov/tae>

E-mail: [sr-tae.webmaster@noaa.gov](mailto:sr-tae.webmaster@noaa.gov)

Phone Number: 850-942-8833 (person) or 850-942-8851 (recording)



@NWSTallahassee



fo.com/NWSTallahassee



NWSTallahassee

Send storm reports via Social Media





# How to send Storm Reports



<http://mping.nssl.noaa.gov/>



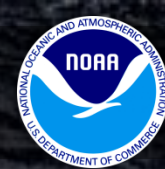
- Free app created by the National Severe Storms Lab
- Available in the Apple App store and Google Play
- Reports from boaters like you helps us keep everyone safe by being our eyes and ears on the water!





# Boating Safety & Preparedness





# Boating Safety

## Boating Accidents and Fatalities Statistics\*

*Accidents happen too fast to reach and put on a stowed life jacket.  
Always wear your life jacket.*

*\*The lowest number of boating fatalities on record was in 2013.*



8 out of 10 people who died were not wearing a life jacket.



8 out of 10 people who drowned were not wearing a life jacket.



5 out of 10 people who died from trauma were not wearing a life jacket.



## Reported Boating Accidents

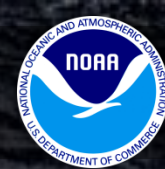
### Most Common Vessels in Accidents\*

1. Open motorboats (46%)
2. Personal watercraft (19%)
3. Cabin motorboats (15%)
4. Other (20%)

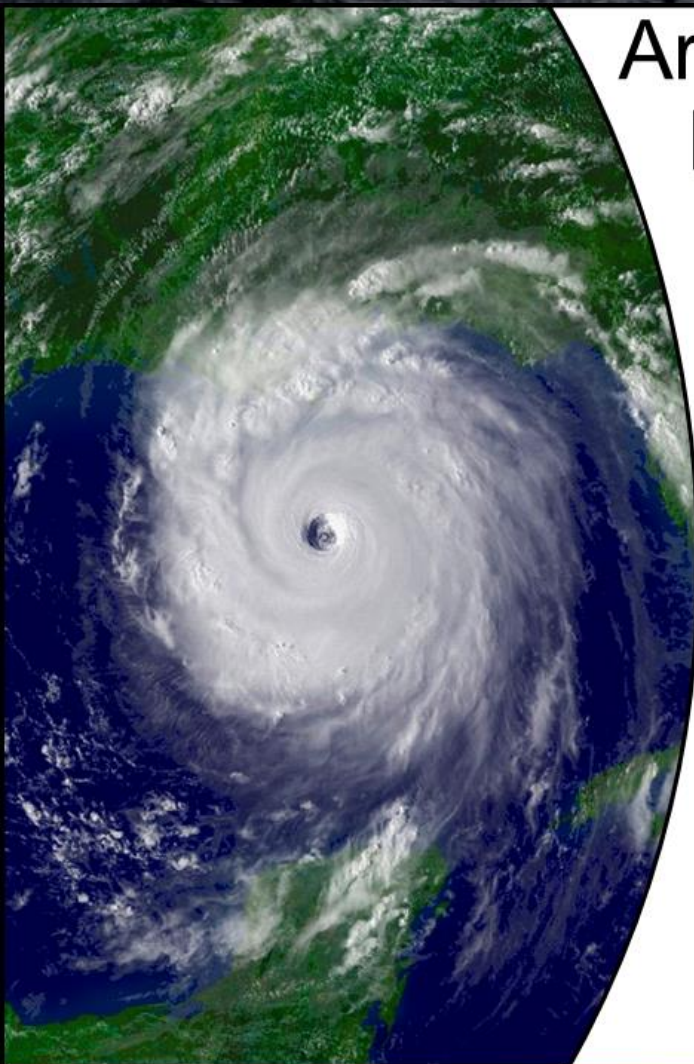
### Top 5 Factors in Boating Accidents and Deaths\*

1. Operator inattention
2. Improper lookout
3. Operator inexperience
4. Machinery failure
5. Excessive speed





# Hurricane Preparedness



## Are you Prepared for Hurricane Season?



...know your evacuation zone



...have an insurance check-up



...build a disaster supply kit



...strengthen your home



...help your neighbor

learn more at  
[flash.org/hurricanesstrong](http://flash.org/hurricanesstrong)



**Weather-Ready Nation**

National Oceanic and Atmospheric Administration

National Weather Service  
[weather.gov/hurricanesafety](http://weather.gov/hurricanesafety)





# Hurricane Preparedness



## Don't wait to secure your boat

- ⌚ Storm surge can carry your boat onshore
- ⌚ Secure your boat before the storm hits
- ⌚ Add additional lines as soon as a Watch is issued

[weather.gov/hurricanesafety](https://weather.gov/hurricanesafety)







# Weather and Navigation Seminar- NOAA National Weather Service Tallahassee Weather Forecast Office and NOAA Office of Coast Survey



Tim Osborn, NOAA's Office of Coast Survey, Chartered 1807





## Economic Contributions of Recreational Fishing — Florida —

4,102,200 anglers spent \$4.3 Billion  
while fishing in Florida.

### Statewide Contributions by Anglers in Florida



**\$7.2 Billion**  
Economic Output



**56,750**  
Jobs Supported

### National Contributions by U.S. Anglers



**\$129 Billion**  
Economic Output



**826,000**  
Jobs Supported

### Annual U.S. Angler Contributions to Conservation

\$752 Million License Sales

\$650 Million Excise Taxes

\$283 Million Donations

**\$1.7 Billion**  
— Total —

### U.S. Anglers by the Numbers

2.4 Million Great Lakes Anglers

10.9 Million Saltwater Anglers

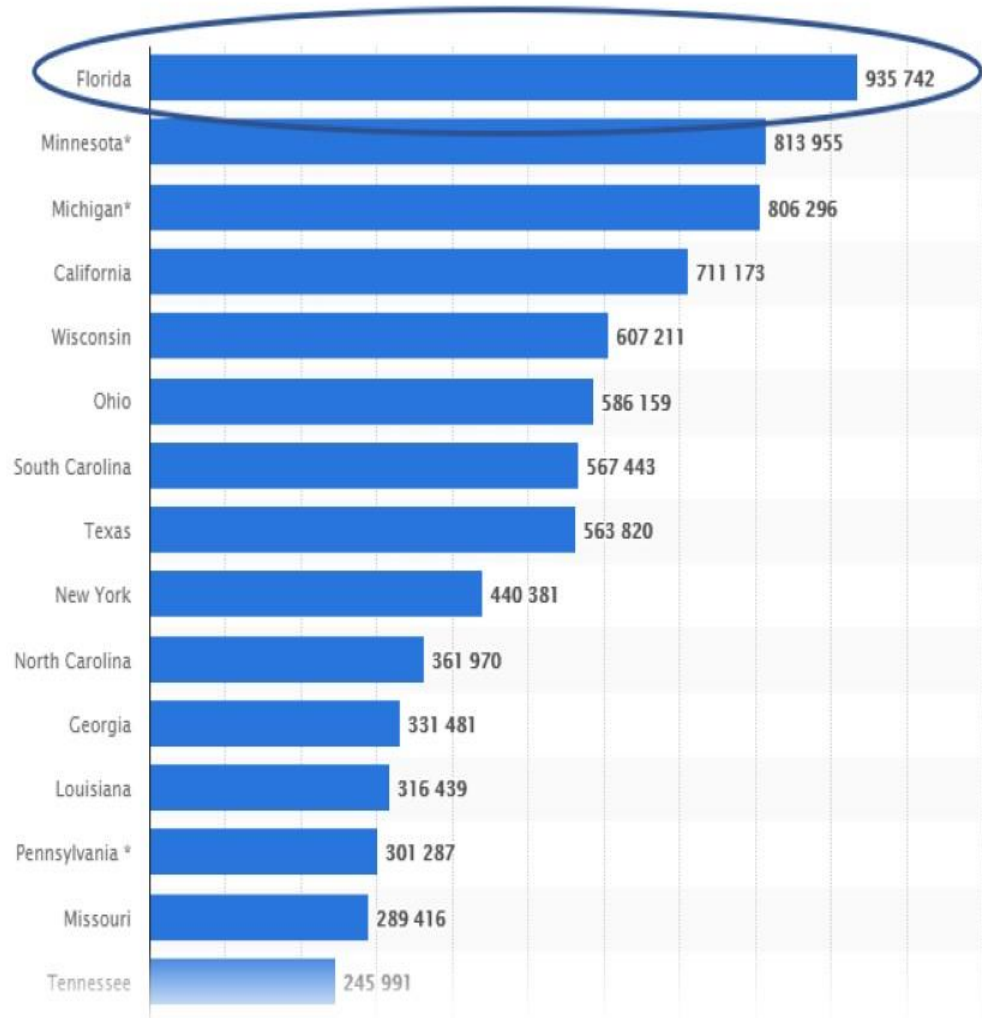
40.5 Million Freshwater Anglers

**49.4 Million**  
— Total Anglers —

Angler participation and spending presented here reflect 2018 estimates. The 13% increase in license sales in the U.S. through September 2020 compared to the year before, and 66% increase in excise tax collections since 2018 indicate economic contributions for 2020 could be significantly greater.



## Number of Recreational Boating Vessels by State, 2019





Sport Fishing and  
Recreational Boating is  
a Family and Friends  
Activity, Found in Bays,  
Passes, Nearshore and  
Offshore.





No- Not a Day for Boating or Fishing

Seminars Like These Provide You With  
Resource Like-

-What Will the Day Be on the Water?

-How Do I get Notified of Severe  
Weather Events

-I do I Know Offshore Wave and  
Marine Conditions?

-Where Am I (in the use of Charts)?

-Where Do I Want to Go?

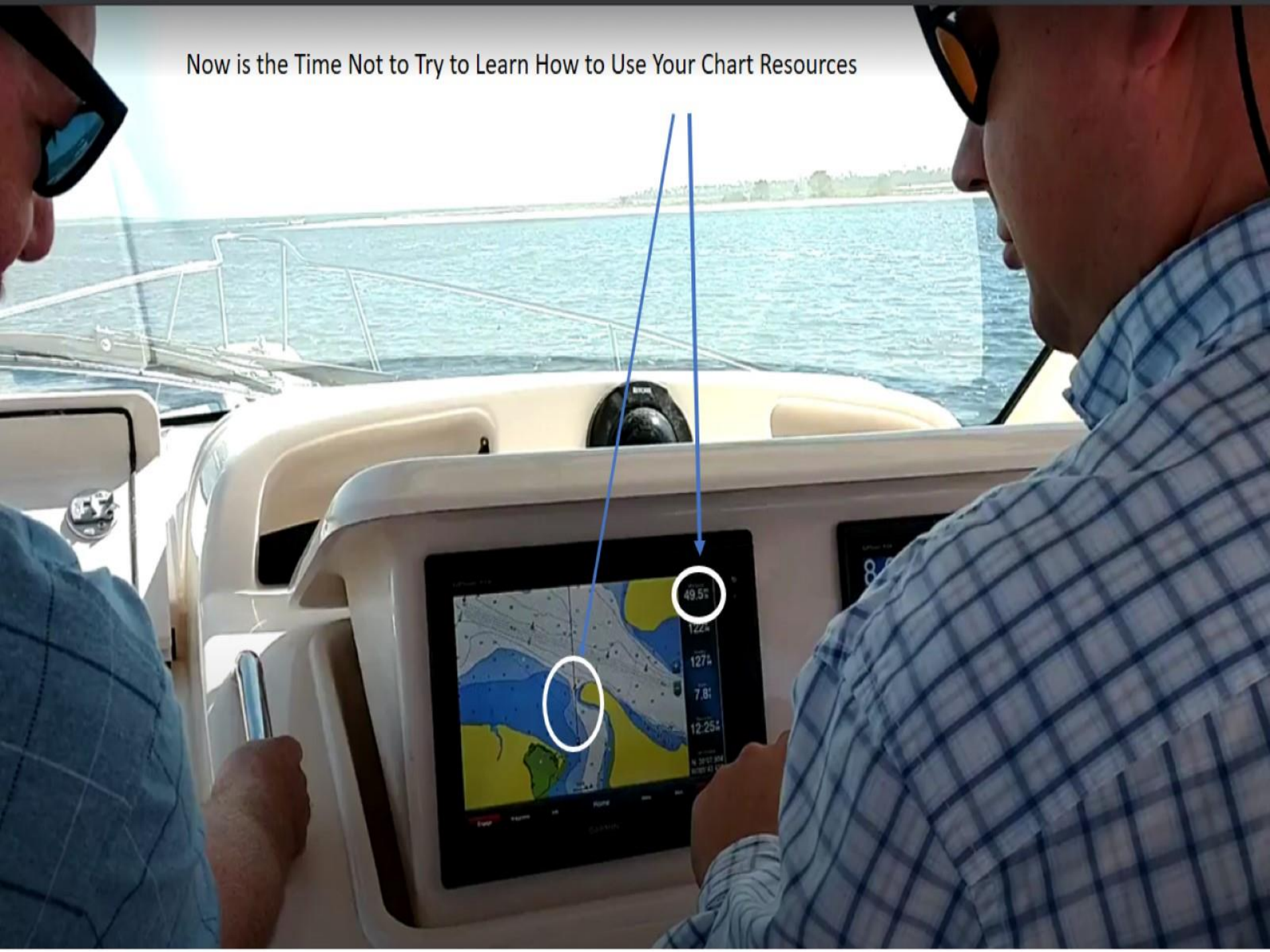
-How Do I Get There?

-Can I Get There (Fuel, Boat, Time?)





Now is the Time Not to Try to Learn How to Use Your Chart Resources





# NOAA Coast Survey's Website and Resources- <https://nauticalcharts.noaa.gov/>



HOME ABOUT PUBLICATIONS DATA SERVICES CONTACT US

## FIND NAUTICAL CHARTS

Chart Locator  
Search by location, date, or chart number

## PRODUCTS & SERVICES

### Certified Charts & Products

View U.S. Coast Survey's products for navigation safety.

- NOAA 5102™**  
The standard electronic chart used on your vessel. Available in multiple formats.
- NOAA Paper Nautical Charts**  
The standard electronic chart used on your vessel. Available in multiple formats.
- NOAA 5102™**  
The standard electronic chart used on your vessel. Available in multiple formats.
- NOAA 5102™**  
The standard electronic chart used on your vessel. Available in multiple formats.

### General Use Charts

View U.S. Coast Survey's products for navigation safety.

- NOAA 5102™**  
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**NOAA's Office of Coast Survey**  
We are the nation's national hydrographic service. We are responsible for gathering, processing, and disseminating hydrographic data to support safe navigation.

## Blog



## Highlights



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NOAA Coast Survey  
National Ocean Service | NOAA | Department of Commerce

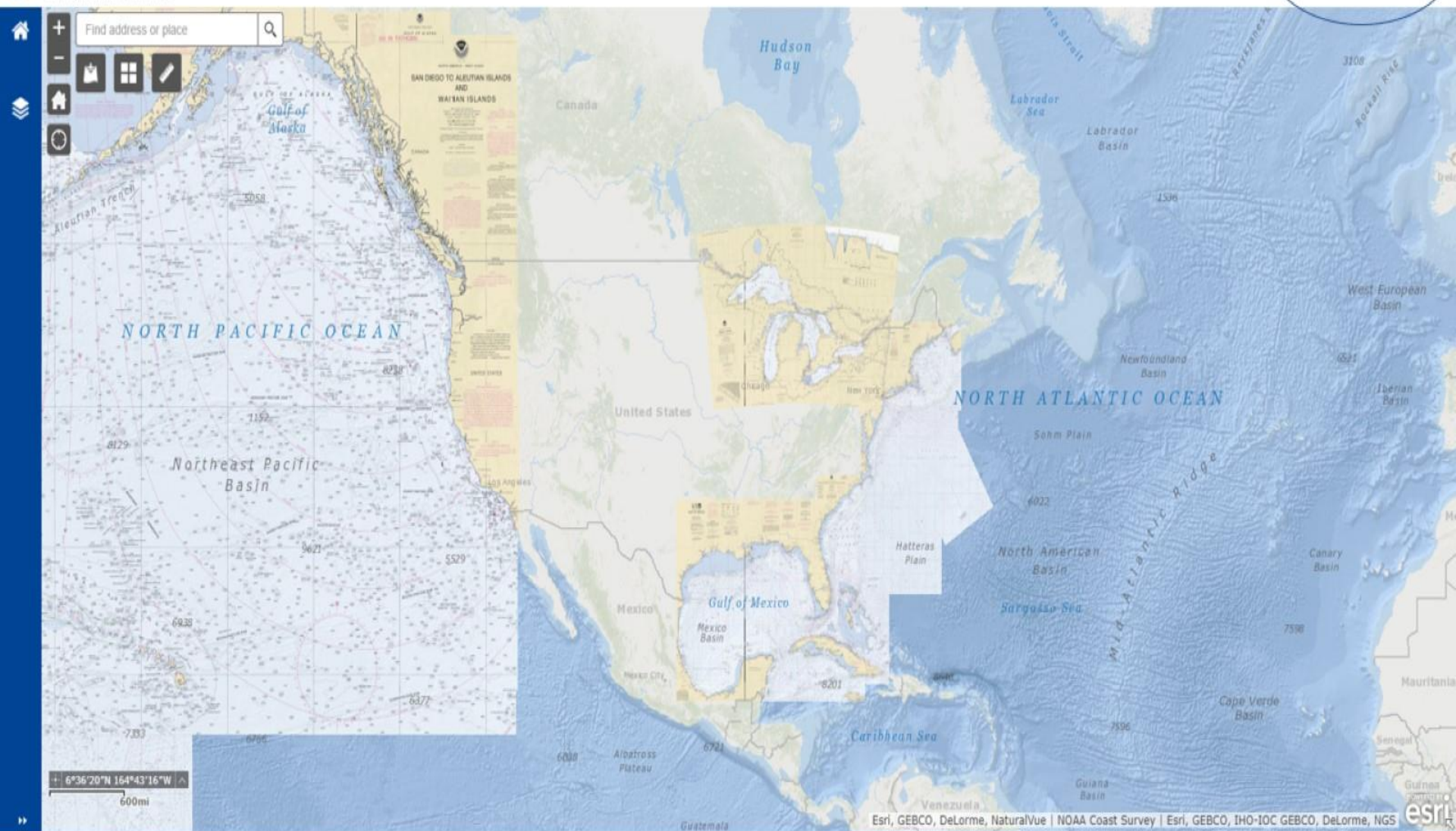
Product 11-00000



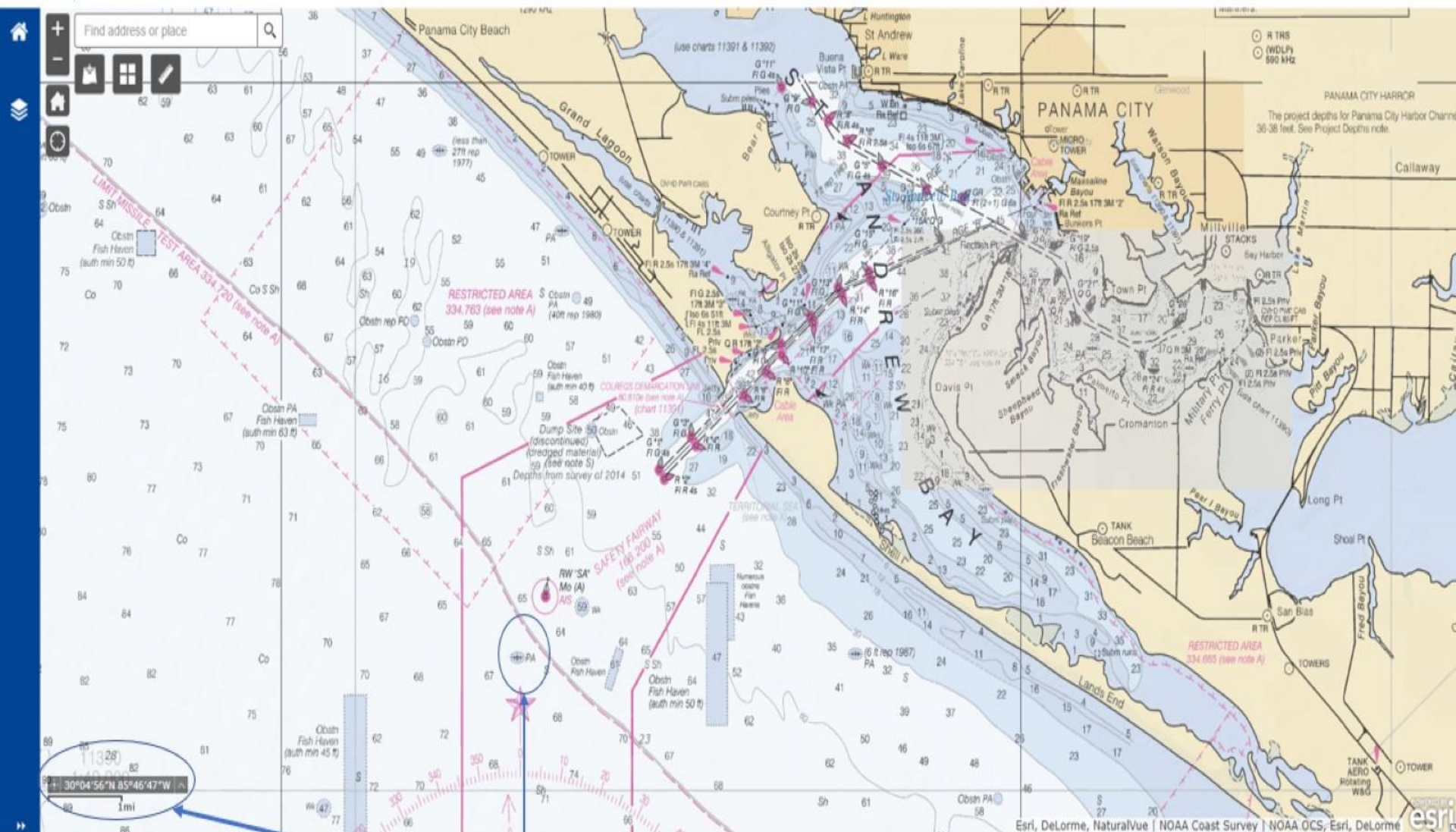




<https://nauticalcharts.noaa.gov/rnconline/rnconline.html>

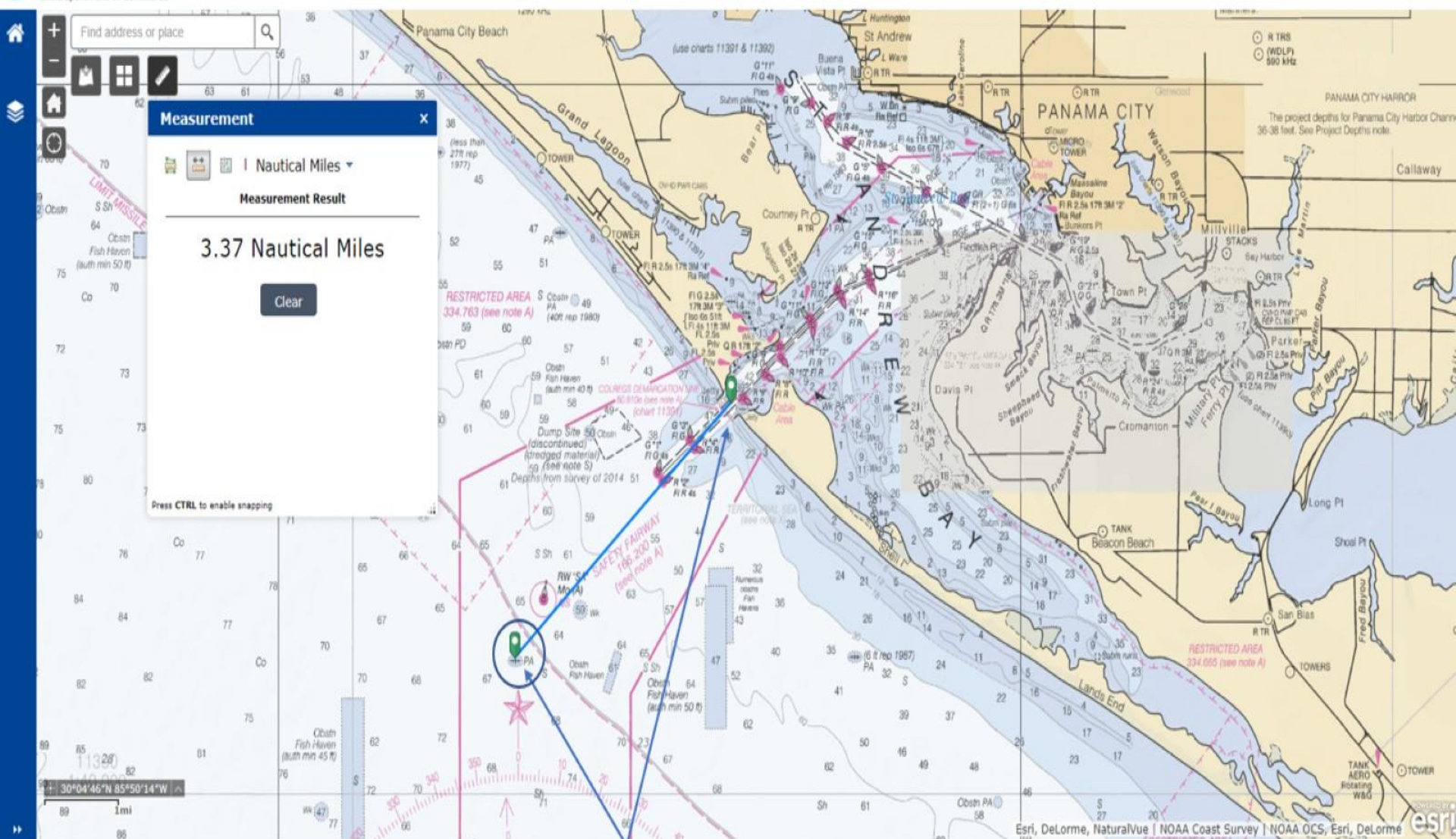






Coast Survey Chart Viewer Allows You To Get Coordinates  
Of Locations You Are Interested In



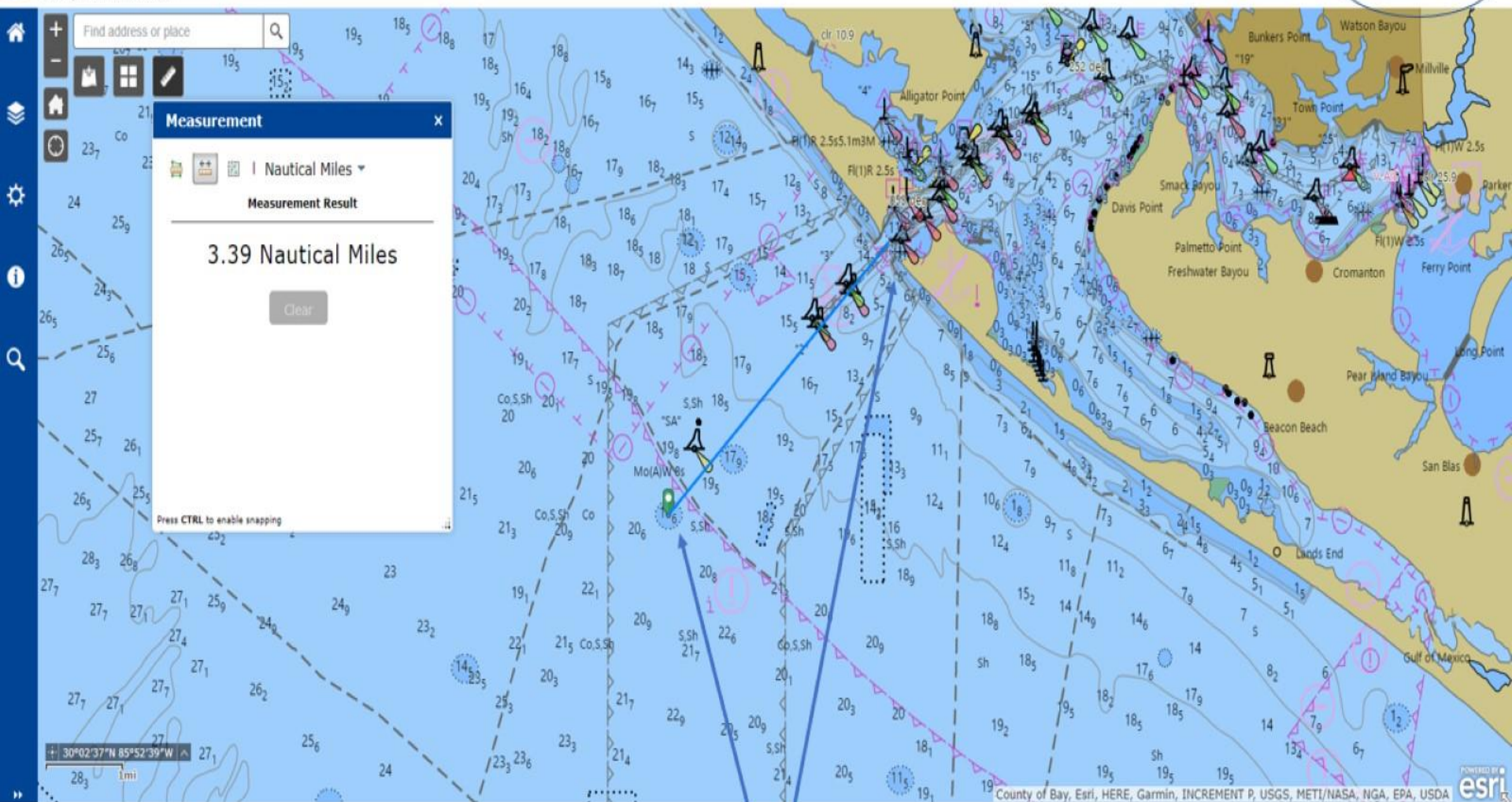


Using the RNC Viewer to find a determine distance and position of a place you want to go to- for example- from St Andrews Pass to a charted wreck- PA means 'position approximate'







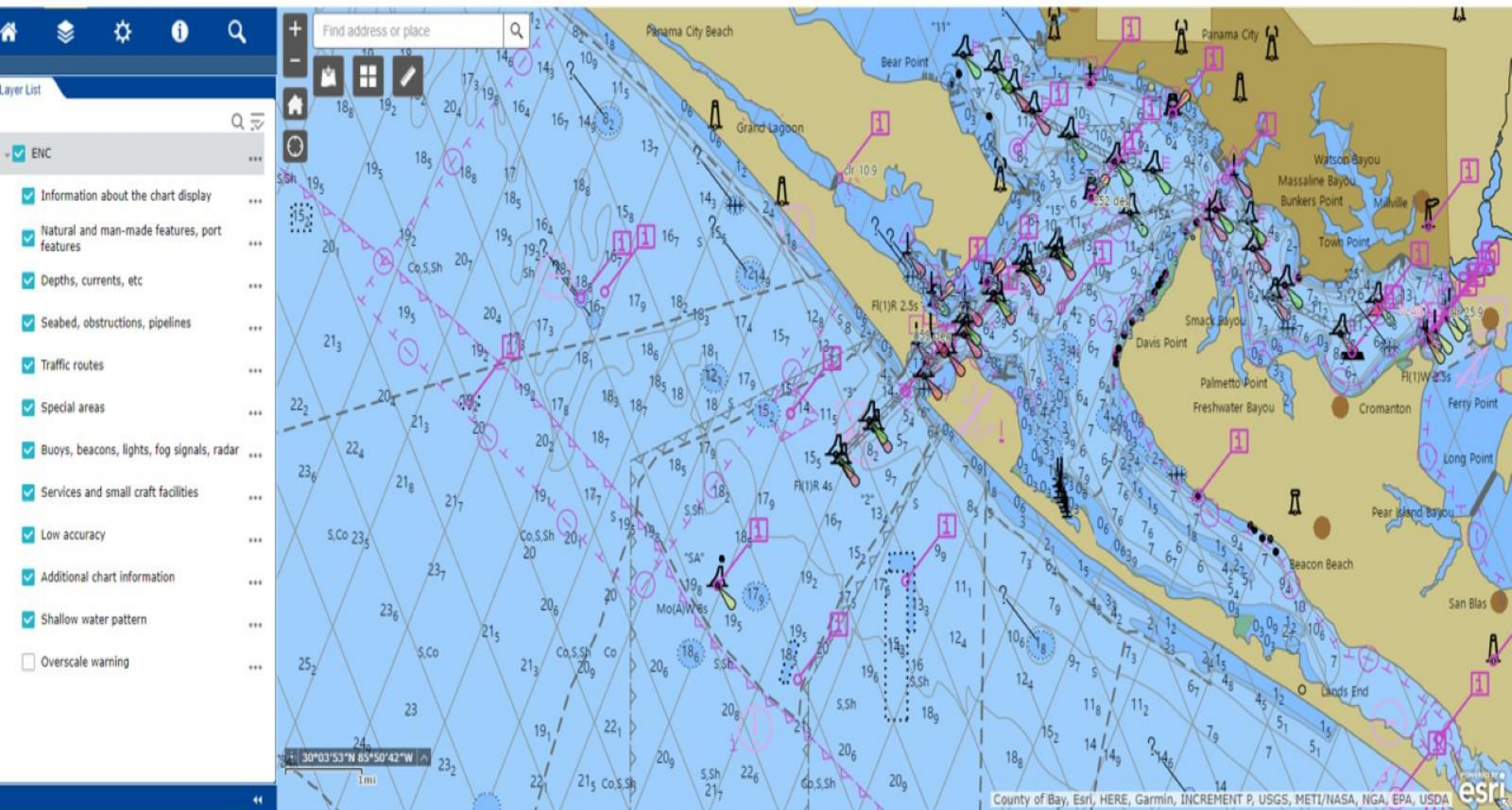


Just like the RNC Viewer, You can Use ENCs the Same Way



# NOAA Coast Survey ENCs Offer More Capability And Layers- The Future Of Charting Resources-

<https://nauticalcharts.noaa.gov/ENOnline/enonline.html>





## U.S. Chart No. 1 (Chart Symbols)

More than 100 pages of information about nautical chart symbols



Obtain a Paper Version of U.S. Chart No. 1

Paper copies of U.S. Chart No. 1 may be purchased from a NOAA-certified printer

### Related Links

Changes Implemented in Edition 13 of U.S. Chart No. 1

Symbology Tips for AIS Alerts to Navigation

### The Symbol Legend for U.S. Nautical Chart Products

U.S. Chart No. 1 describes the symbols, abbreviations, and terms used on nautical charts. It is produced by NOAA and the National Geospatial Intelligence Agency. The symbols for paper charts and their analogous digital products, such as NOAA raster navigational charts (NOAA RNC<sup>®</sup>) are shown, as well as the symbols used to portray NOAA electronic

## The Symbols on the Charts are Not Random- The Link and the Guide Gives You a lot of Good Information to Understand the Charts

### Q Buoys, Beacons

No.	INT	Description	NOAA	NSA	Other NSA	SCRS
128		buoy				
129		buoy				
130.A		buoy				
130.B		buoy				
130.C		buoy				
130.D		buoy				
130.E		buoy				
130.F		buoy				
130.G		buoy				
130.H		buoy				
130.I		buoy				
130.J		buoy				
130.K		buoy				
130.L		buoy				
130.M		buoy				
130.N		buoy				
130.O		buoy				
130.P		buoy				
130.Q		buoy				
130.R		buoy				
130.S		buoy				
130.T		buoy				
130.U		buoy				
130.V		buoy				
130.W		buoy				
130.X		buoy				
130.Y		buoy				
130.Z		buoy				

<https://nauticalcharts.noaa.gov/publications/docs/us-chart-1/ChartNo1.pdf>

## Understanding NOAA Chart Symbology

NOChart@noaa.gov

Nautical Chart Symbology Tips from the Editor of U.S. Chart No. 1\*

February 2016

### Fish Havens



**Fish havens** are artificial shelters made up of rocks, rubble, subway cars, ships, airplanes, specially designed concrete structures, and other objects placed on the sea floor to attract fish and enhance their habitat. They are often located near fishing ports or major coastal inlets. Consisting of rigid materials and projecting above the bottom, they can impede surface navigation and foul anchors. Thus, all fish havens are labeled with the abbreviation "Obsta" for obstruction on NOAA charts.

Only fish havens authorized by the U.S. Army Corps of Engineers are shown on NOAA charts. The Corps specifies an "authorized minimum depth" for each, which is the shallowest depth to which objects may project toward the surface. For example, the decommissioned U.S. Coast Guard Cutter *Duane*, shown above, was intentionally sunk in 1987. It lies upright in 120 feet of water near Key Largo, Florida, but its superstructure rises to only 60 feet below the surface. The NOAA chart, shown at right, labels the fish haven with an "auth min 50 ft" (the minimum refers to the depth to which objects may be added, not necessarily the existing obstructions).

The three symbols used to represent fish havens on NOAA charts are shown in the table below.

Symbol listed in U.S. Chart No. 1	Symbol	Description
K 46.1		A circle is used to depict fish havens that are too small to show their actual size on the nautical chart.
K 46.2		Fish havens with an authorized minimum depth of 66 ft (20 meters) or less are charted with a dotted line and tinted blue.
K 46.2		Fish havens with an authorized minimum depth of more than 66 ft (20 meters) are charted with a dashed line with no tint.

**Fishing prohibited or permitted?** There is an international symbol to delineate areas where fishing is prohibited (at left and N 21.1 in U.S. Chart No.1). However, NOAA does not show federal, state or local fishing restrictions on its nautical charts. The fish haven symbols, shown in the table above, do not indicate whether fishing is allowed or not. Many fish havens were created to support and encourage recreational fishing, while others have been created specifically to protect fish and fishing may be restricted in these areas. Anglers should check with appropriate authorities before dropping a line within a fish haven to learn what restrictions, if any, may apply.



\*U.S. Chart No. 1 is actually not a chart, but a book that describes the symbols used on all nautical charts produced by the National Oceanic and Atmospheric Administration (NOAA) and the National Geospatial Intelligence Agency (NGA). A free copy may be downloaded at <http://www.nauticalcharts.noaa.gov/docs/chart1.htm>



# Making Your Own Custom Chart

<https://devgis.charttools.noaa.gov/pod/>

## PRODUCTS & SERVICES



### Certified Charts & Products

*meets U.S. Coast Guard carriage requirements for commercial vessels*

#### [NOAA ENC® >](#)

Find out about NOAA's vector electronic navigational charts.

#### [NOAA Paper Nautical Charts >](#)

Find out about NOAA's Paper Nautical Charts.

#### [United States Coast Pilot® >](#)

Download free sailing directions or buy a paper copy from a NOAA certified publisher.



### General Use Charts

*does not meet U.S. Coast Guard carriage requirements for commercial vessels*

#### [NOAA Custom Charts >](#)

Create and download charts based on your own scale, extent, and paper size settings.

#### [NOAA RNC® >](#)

Find out about NOAA's raster navigational charts.

#### [Full-size Nautical Charts >](#)

Find out about free full-size images of nautical charts.

#### [Booklet Charts™ >](#)

Find out about free page-size images of NOAA nautical charts.

#### [Historical Charts >](#)

Download free images of maps and charts dating back to 1807.



### Chart Viewers

#### [ENC Viewer >](#)

View a seamless display of all NOAA electronic navigational charts using ECDIS symbology.

#### [RNC Viewer >](#)

View a seamless display of all NOAA raster navigational charts using traditional paper chart symbology.

#### [Nautical Chart Viewer >](#)

Go to the [Dates of Latest Editions](#) list to view individual raster charts.

Find, view, and download any NOAA nautical chart product with the [NOAA Chart Locator](#)



### Other Services & Publications

#### [nowCOAST™ >](#)

Access real-time coastal observations, forecasts and warnings.

#### [U.S. Chart No. 1 >](#)

Get the guide to the symbols, abbreviations and terms used on NOAA nautical charts and ENCs.

#### [Chart Updates >](#)

Find out what has changed on NOAA nautical charts and ENCs since the last new edition.

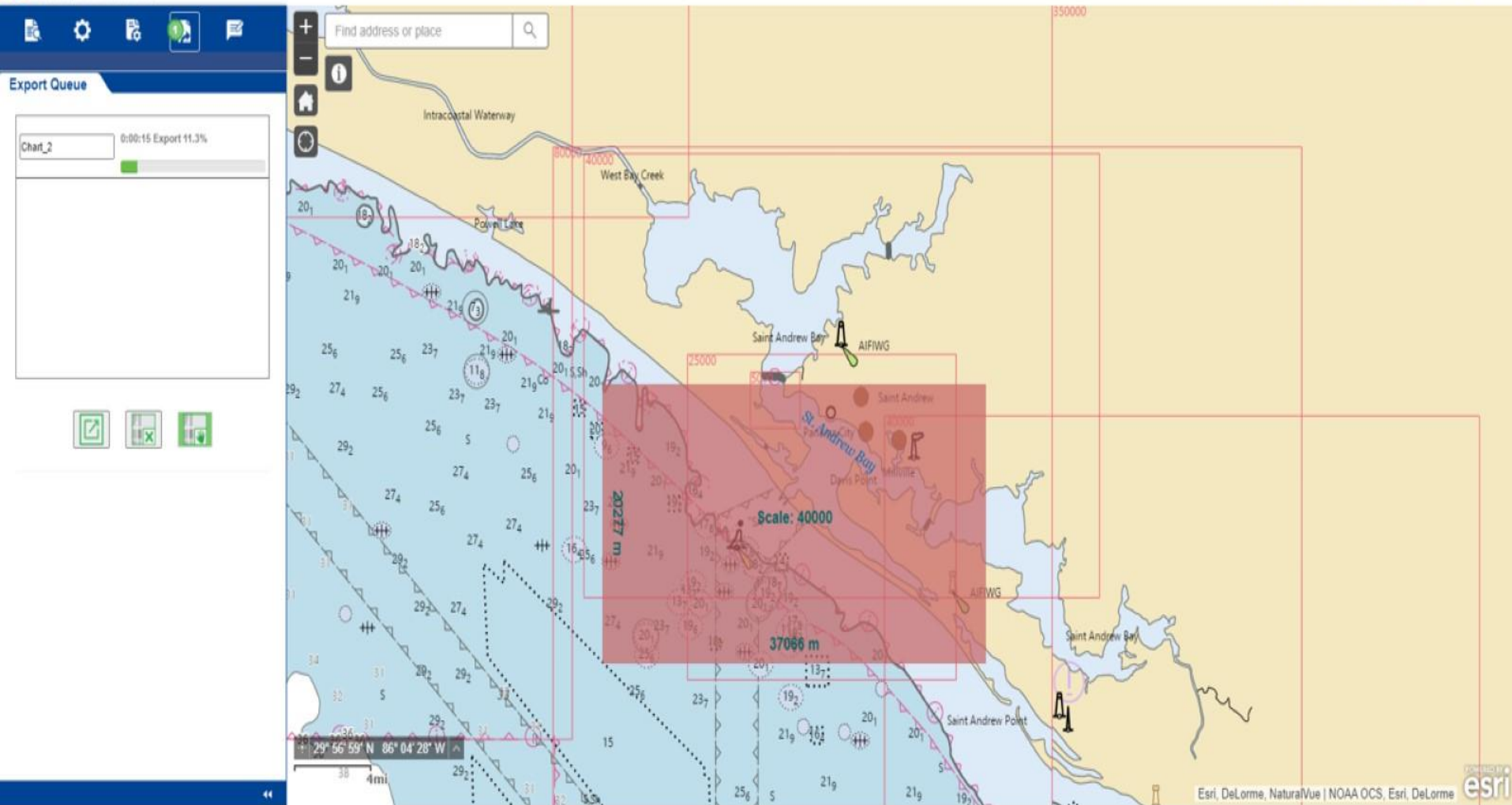


## NOAA's Office of Coast Survey

We are the nation's nautical chart-maker. We are responsible for upgrading charts, surveying the seafloor, responding to maritime emergencies, and searching for underwater obstructions that pose a danger to navigation.



# Here We Select a 1:40,000 Scale Custom Chart for the St Andrews Pass Area and Bay and Offshore





# The Custom Chart is Made- And Appears Like This

UNITS IN METRES

SAMPLE CHART : NOT FOR NAVIGATION

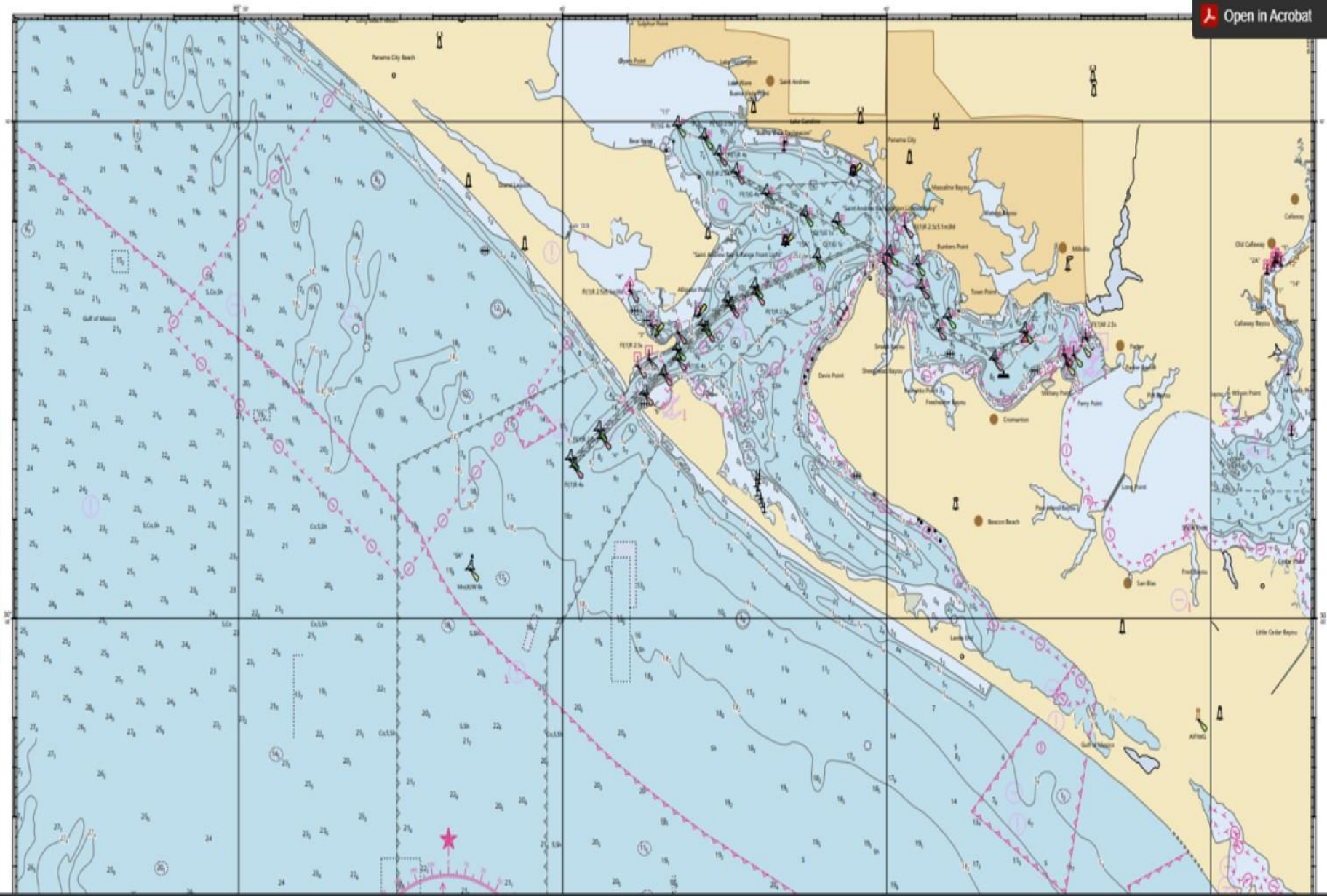
Chart 2

WGS 84

Open in Acrobat

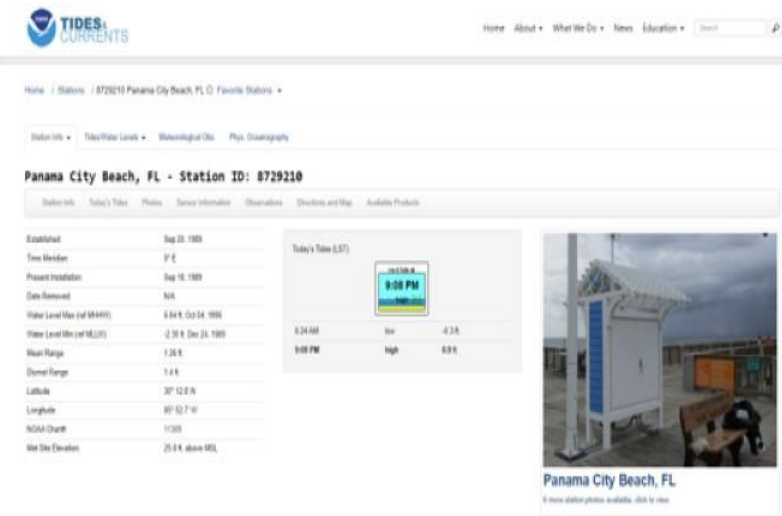
SAMPLE CHART : NOT FOR NAVIGATION

SAMPLE CHART : NOT FOR NAVIGATION



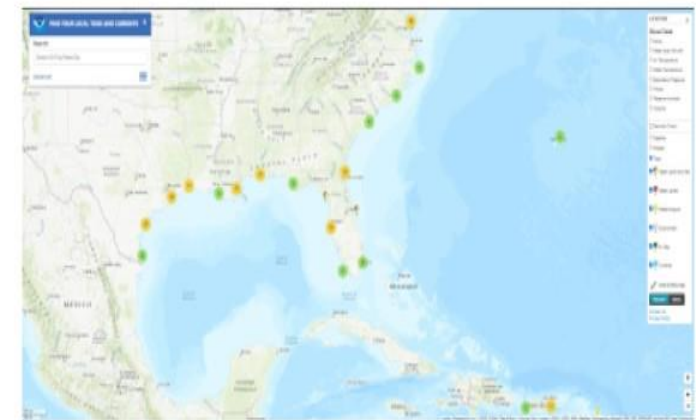


<https://tidesandcurrents.noaa.gov/stationhome.html?id=8729210>

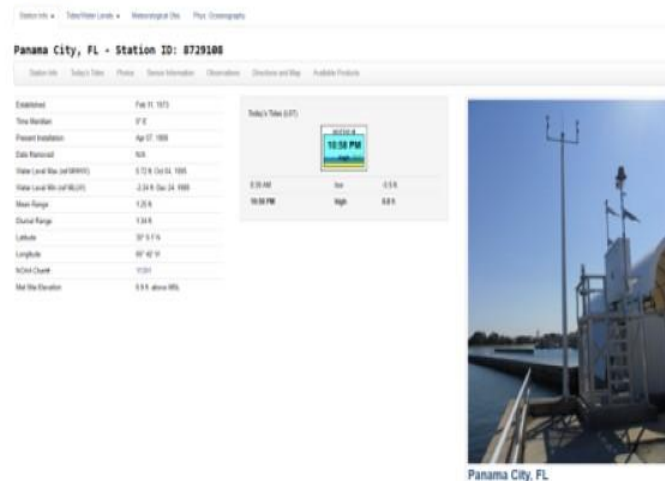


Finding The NOAA Tide Station Near You Offers a Range of Resources for a Day on the Water

<https://tidesandcurrents.noaa.gov/map/index.html?region=Florida>



<https://tidesandcurrents.noaa.gov/stationhome.html?id=8729108>







The End of the Day

Safe Back On Shore







# Presentations & Recording

<https://www.weather.gov/tae/marine>

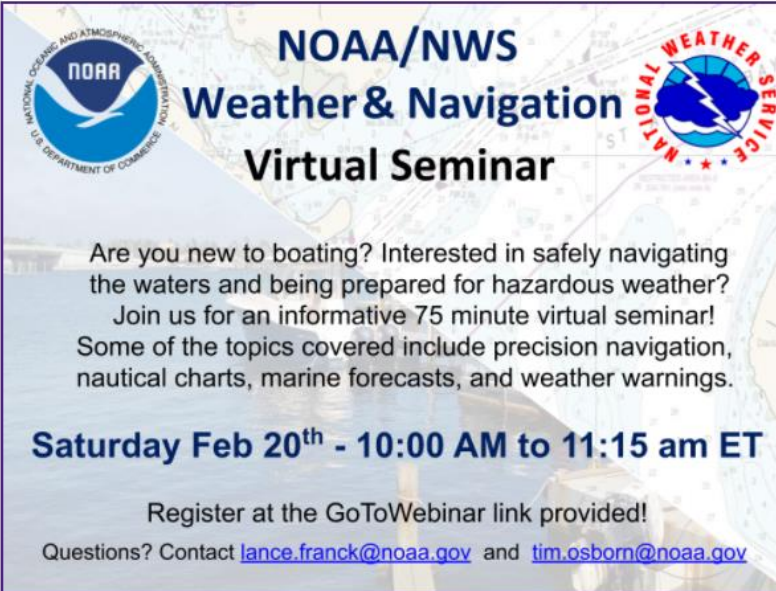
## Tallahassee Marine Weather Page

[Weather.gov](#) > [Tallahassee, FL](#) > Tallahassee Marine Weather Page

Tallahassee, FL  
Weather Forecast Office

### Upcoming NWS Tallahassee Marine Seminars

Click the image below to register for the upcoming seminar!



The poster features the NOAA logo on the left and the National Weather Service logo on the right. The text in the center reads: "NOAA/NWS Weather & Navigation Virtual Seminar". Below this, it asks: "Are you new to boating? Interested in safely navigating the waters and being prepared for hazardous weather? Join us for an informative 75 minute virtual seminar! Some of the topics covered include precision navigation, nautical charts, marine forecasts, and weather warnings." The date and time are listed as "Saturday Feb 20<sup>th</sup> - 10:00 AM to 11:15 am ET". At the bottom, it says "Register at the GoToWebinar link provided!" and provides contact information: "Questions? Contact [lance.franck@noaa.gov](mailto:lance.franck@noaa.gov) and [tim.osborn@noaa.gov](mailto:tim.osborn@noaa.gov)".

Welcome to the new Marine Website for NWS Tallahassee! The legacy marine website can be found by clicking [here](#).

Send us your marine storm reports via our [online form](#). Help us keep everyone safe by being our eyes and ears on the water!

Current  
Conditions

Zone  
Forecasts

Point  
Forecasts

Beach  
Forecasts

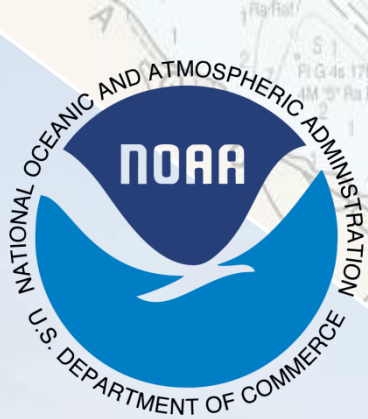
NWPS  
Output

Tides / SST's

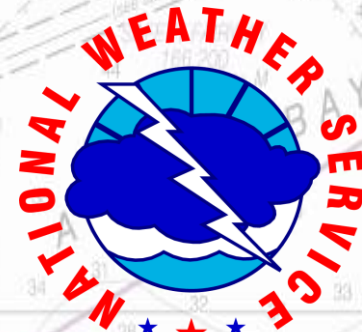
Marine  
Program

Will be posted Monday Feb 22





# **NOAA/NWS Weather & Navigation Virtual Seminar**



## **Thank You!**

### **Presenters**

**Lance Franck – NOAA/NWS Tallahassee**

**Tim Osborn – NOAA Office of Coast Survey**

Questions? Contact [lance.franck@noaa.gov](mailto:lance.franck@noaa.gov) or [tim.osborn@noaa.gov](mailto:tim.osborn@noaa.gov)